

**MDANTSANE:**

CITY, SATELLITE OR SUBURB?

by

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## INTRODUCTION

The final step envisaged by present South African Government policy in respect of the black peoples of South Africa is the granting of political independence to the ten homelands which have been set aside for occupation by the various ethnic groups recognized by the Government. This step represents the culmination of ideas that have developed regarding the separation of races since early in South Africa's history, and decisions that have been taken to implement them. Particularly since the first attempts to formulate black policy after Union in 1910, there have been protagonists of a segregationist policy, and the idea of some sort of self-government for the various races of South Africa has been evident in the country for many years. This idea was given greater stature in the policies of the national government after 1948, and in 1959 full political independence for the various black nations in South Africa became a political goal of the governing party. As this policy has progressed during the present decade, a number of new political areas have come into existence at various levels of the hierarchy of political areas (Fig. 1).

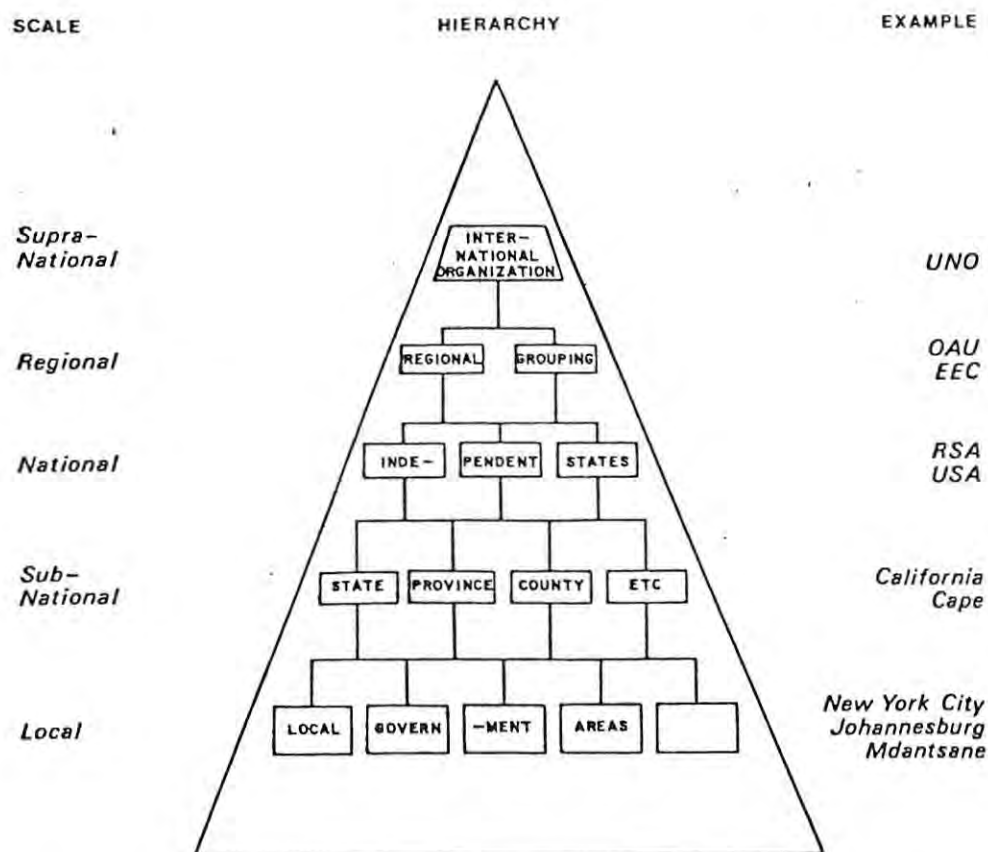


Fig 1. The hierarchy of political areas

### The Hierarchy of Political Areas

A political area includes any portion of the earth's surface which is de facto a distinct political unit, or which has been established as such by law, statute or international treaty, and which has recognized, though not necessarily linear or permanent limits, and commonly, though not essentially, some form of administrative centre. Generally the boundaries are known and are marked on a map, even if they are not always demarcated on the ground. In each case the area has been defined as a result of a human decision or sequence of such decisions. These political areas are arranged in a pyramid of political authorities known as the hierarchy of political areas. At the summit are supra-national organizations such as the United Nations' Organization to which individual states may belong, generally without the surrender of any significant part of their sovereignty. Certain regional groupings also exist at the supra-state level. They are often organizations to facilitate the pursuit by their members of certain political or economic goals, e.g. the Organization of African Unity or the European Economic Community. Both of these levels of the hierarchy are comprised of individual states, and these independent countries are regarded by Pounds (1963) as "... the most significant of all (political) areas." The state is normally the only constituent of the hierarchy of political areas which is not subject to any outside authority, and it is on the state that emotions, attitudes and loyalties are generally focussed. The state can formulate its own ideas on any variety of matters, legalize such ideas by means of political decisions, and implement them in its policy towards all other political areas: upwards in the case of supra-national or regional groupings, horizontally when dealing with other individual states, or downwards towards those political areas into which the state itself is divided. The subdivisions of the state, the sub-national and local levels of the hierarchy of political areas, are commonly associated with the implementation of ideas and decisions, and are often little more than administrative

conveniences, providing a basis for some of the less pleasant operations of government such as the selling of licences or the collection of taxes. Nevertheless, in them certain governmental functions also exist. Whereas the state has its laws and executive, army and civil service, the county or province has its council and statutes and the city or village its municipality and by-laws, officials and authorities, boundaries and territorial base. Though political functions are in general of diminishing significance as the base of the pyramid is approached, all the constituents of the hierarchy are nonetheless political areas, and for each political area it is possible to ask why it has assumed the geographical form it has, which decision or sequence of decisions brought it into being, and what physical, political, social or idea-realm it encompasses.

The position of any constituent of the hierarchy of political areas is not necessarily fixed, static or permanent, and this has been especially true of political areas in Africa and South Africa during the recent 'decolonization' stage of political development. During the 1960's dependent colonies became independent states at a greater rate than ever before and in a unique experiment the South African government is attempting to lead a group of ten tribal homelands within its borders to political independence during the 1970's and the years to follow. One such homeland, the Ciskei, began life as an indefinite, areally rather than politically based, descriptive term. As time passed and ideas evolved the Ciskei was translated into a sub-national constituent of the hierarchy of political areas, existing as a group of fifty four fragmented native reserves.

As ideas in government circles changed and policies unfolded there came a number of decisions which served to consolidate these reserves to form a homeland with ultimately the goal of independence (Fig. 2). A further subdivision of the political area of the Ciskei is Mdantsane, a magisterial

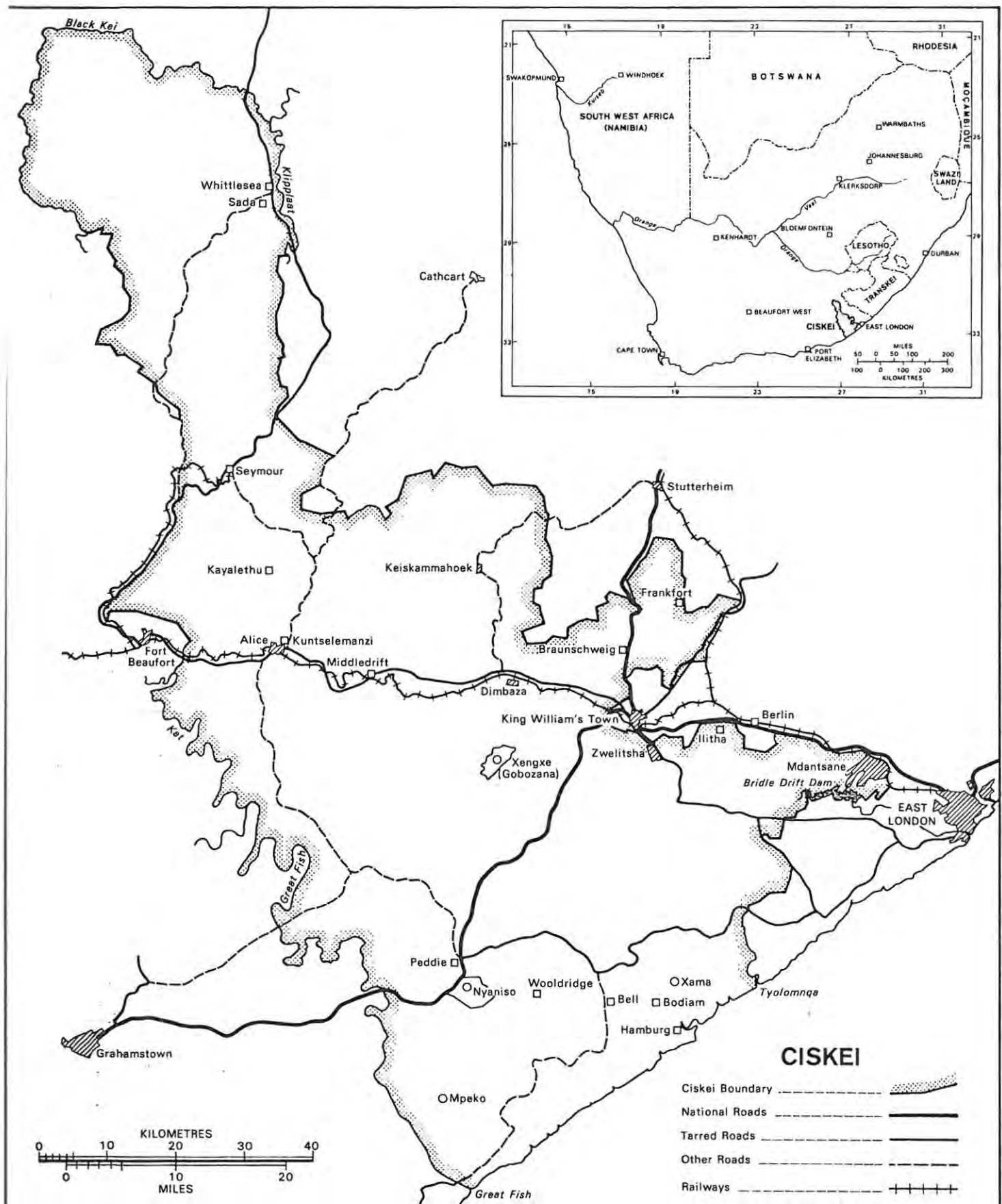


Figure 2: The Ciskei (including proposals for consolidation)



district the greater proportion of which is built up to form the largest urban settlement of the homeland. This urban appendage of East London was proclaimed a homeland township in 1966 (Government Gazette No. 537, 7 April 1966) after construction of the first houses had commenced under the aegis of the East London City Council in 1963. Its population growth in fourteen years has been such that by 1970 it was the nineteenth largest urban centre in South Africa (Republic of South Africa Population Census 1970) and 1977 population estimates suggest that it has reached seventh place in the rank size order of South African cities. The township is situated immediately to the west of East London (Fig. 2) and is an important constituent of the proposed East London - King Williams Town Metropolitan area of the Department of Planning and the Environment (National Physical Development Plan 1975).

Mayer (in James and Jones, 1954, p.143) holds that "... geographers are concerned with the study of cities because urban centres constitute distinctive areas economically, socially and politically important out of all proportion to the areas they occupy." In the case of Mdantsane this is particularly relevant, for though the township was originally conceived by the City Council as part of East London, the changing political situation as government policy develops could result in its being severed from that city by an international boundary. Logically this should have a profound effect on its economic, social and politico-administrative role, transforming it at the stroke of a pen into the major urban settlement of an embryonic state.

This possibility raises a number of pertinent questions. Have the ideas on which the planning of Mdantsane was based, and the decisions which brought it into being, had any visible effect on the urban settlement that has emerged? If so, can Mdantsane actually become a city, capable

of fulfilling the role expected of the largest urban centre of an independent country, or is it merely a dormitory suburb, crammed with commuters by night but little more than a shadow of a city by day? Is it perhaps a special type of urban settlement, with differing origins and developmental course, but a similar role in its community to that commonly expected of a city, or is it destined to be an insignificant, dismembered conglomeration of dwelling units with no political, social or economic importance vis-a-vis the developing state in which it finds itself?

This study examines the development of the idea and its physical emergence in Mdantsane; describes the geographic patterns which can be distinguished within and around the settlement; and postulates about its possible future course of development. However, as no city can exist in isolation from the region or state in which it is situated, it is necessary to trace briefly the developmental course of the Ciskei from dependent homeland to self governing territory, and to consider its likely future development as well.

Part I of this study therefore provides the theoretical background to the analysis of both the development of the urban settlement and the description of inter-urban and intra-urban patterns. It includes sections on a developmental theory in political geography, the new towns concept and analytical procedures applicable to the study of the urban scene. Part II is concerned with the application of this body of theory to the study of Mdantsane. The development of the urban settlement is traced through its various stages to the physical feature as it exists today. This built-up area with its associated patterns is analysed and described using the most suitable techniques from amongst those available in urban geography. The emergence of new political ideas and the resultant decisions and movements within the Ciskei are considered in Part III. In the light thereof and with the aid of political geographical theory some postulations about the future course



of development of the state and the effect thereof on Mdantsane are attempted. This study thus aims to provide as complete a picture as possible of the nature of a particular urban settlement by using the methods of political and urban geography in conjunction with each other.

PART I

THEORETICAL BACKGROUND

CHAPTER 1 POLITICAL GEOGRAPHICAL THEORY

CHAPTER 2 URBAN SETTLEMENTS AND UNIFIED FIELD THEORY

CHAPTER 3 ANALYSIS OF THE POLITICAL AREA

## CHAPTER 1

## POLITICAL GEOGRAPHICAL THEORY

Allusions that may be regarded as essentially politically geographical are to be found in the works of many great writers of the past: Herodotus, Aristotle, Plato, Rousseau, Herder and Hegel to name but a few. However, no one was conscious of political geography as a separate discipline, and it did not even begin to develop as such until the time of Friedrich Ratzel (1844-1904). From then, however, development was rapid, and thirty years later political geography was firmly established. The early work, though in many cases "... of considerable quality ..." (Muir, 1975, p. 5), was almost entirely empirical-descriptive, and Hartshorne, in a review of the field in the early 1930's, found "... no clear basis for determining the scope of political geography" (James and Jones, 1954, p. 177). Similar sentiments were expressed by Isiah Bowman who wrote the first major text on political geography in America. In a letter in 1937 he bemoaned the fact that there was "... no body of principles or body of doctrine ..." with regard to the subject. Though Bowman himself made no attempt to construct a theory, other political geographers of the time, especially those in the United States, were aware of the shortcoming and had already begun working on this aspect.

Hartshorne (1935), basing his ideas on the work of Ratzel and his followers, developed a definition of political geography as the study of the state as a characteristic of areas in relation to the other characteristics of areas. Whittlesey (1935), freeing himself from the historical environmentalism which pervaded much of political geographic thought of the time, propounded

some theories in accordance with the views developing in the U.S.A. on geography as a whole, which regarded political geography as a study of areal differentiation based on political phenomena. He developed this theme further with publications in 1939 and 1945, but all these early theoretical approaches tended rather to emphasize different aspects of the discipline, and none can be regarded as appropriate to the subject matter of political geography as a whole (Muir, 1975). It was not until the 1950's that the major statements appeared which were to form a solid theoretical base for the discipline and which were to influence the course of political geography to the present day. In 1950 Hartshorne, in his presidential address before the Association of American Geographers, reformulated his ideas on his earlier morphological approach, castigating it as static and dull, and suggesting in his Functional Approach to Political Geography (1950) that the point of departure in the subject should be the function of politically organized areas. Whereas this notion was new to the field of political geography, function had long enjoyed the attention of workers in other branches of human geography, and its application to the study of low-order political areas, particularly cities, was widespread. Hartshorne, however, placed the emphasis on a higher-order area, what he termed the state-area, and particularly on the centripetal forces which allowed it to function as an effective unit despite the centrifugal forces acting within it. The most important centrifugal force within the state-area he regarded as the state-idea. Gottman (1951) expanded this state-idea to include beliefs, social viewpoints and 'a pattern of political memories' which he grouped collectively under the term iconography. If iconography is the cohesive force bringing about unity within a region, what is responsible for the political partitioning so characteristic of many regions on earth? Gottman (1952) suggested that the divisive force

was movement and that circulation in its wide variety of forms - trade, traffic, transportation and communication, encompassing all the variety and complexity of exchanges throughout the world has great significance and relevance in political-spatial processes. In 1954, S.B. Jones developed and expanded these ideas. He suggested that the political idea, including the state idea, iconography or any other political concept in the minds of men and the political area, incorporating not merely the state area, but any constituent of the hierarchy of political areas, are the two ends of a chain of interconnected basins or hubs of activity and that the geographical form assumed by the political area could be directly related to the substance of the political idea. The process by which this occurred could be explained in terms of the intermediate links. Jones termed his model a Unified Field Theory of Political Geography.

#### The Model

Jones' unified field theory, then, places political idea and political area at either end of a chain. The intermediate links are political decision, movement and field.

#### The Political Idea

According to Jones, the political idea is not limited to the state idea or even Gottman's iconography. It may include any idea or even instinct which may have political ramifications in the broadest sense of the word. While it could be the state idea, a religious belief or racial or cultural awareness, it may merely be a gregarious instinct, warring instinct or fear of a common foe. It may even be as limited as the idea of a speed limit on a country road. Such political ideas may well have spatial ramifications. One such idea was colonialism; another was Zionism. Geopolitik in inter-

war Germany and the idea of communist world domination in latter years have similarly been translated into a spatial component.

However, many political ideas never reach the stage of action and for any progress to take place in respect of a political idea, a decision is necessary.

### The Political Decision

Jones felt that a political decision need not essentially be a formal parliamentary decision, but felt that unless there is some form of decision an idea must die, or at best remain in the realm of pure thought. For example, the political idea of expansionism or colonialism may lead to the decision to occupy territory or redraw boundaries, but until such a decision has been taken, there can be no transference of the idea from the realm of the mind to that of reality.

### Movement

The implementation of the political decision can and usually does result in movement of some kind (or circulation in the terminology of Gottman): movement of people, goods, money, ideas and information, for example. The decision may create new movement, or it may merely result in changes to, or restriction on, existing movement. Usually it involves persons and concrete things, though it may be taken to involve abstract concepts and the flow of ideas and thoughts as well.

### Field

This developmental process operates in a field of circulation that comes into existence as a result of the movement. The field may have tangible, spatial characteristics, but it includes also the conceptual frame within

which the movement occurs and the effects are felt.

### The Political Area

At the end of the chain lies a political area which will fall somewhere on the hierarchical continuum of political areas (Fig. 1).

Despite the one-way sequence of events suggested by the term 'idea-area chain' by which the statement came to be known, Jones was at pains to emphasize the underlying principle of two-way interaction: the links interact with each other so that, as the process continues, movement for example, could influence the decisions or alter the ideas. Interaction within the field or political area could ultimately generate new movements, new decisions or new ideas which could in turn alter materially the final form of the political area. Or as Jones (1954, p. 113) himself states it, " ... the basins (of the chain) interconnect at one level so that whatever enters one will spread to all the others." Though flow may occur in either direction, there is a distinction between forward flow in the direction of area and reverse flow towards idea. The former is largely creative (e.g. the idea of Zionism ultimately resulting in the creation of the Jewish state of Israel) while the latter, Jones feels, may more correctly be regarded as conditioning.

### Applications

Jones himself suggests a number of possible applications for his theory. The Israeli case has already been mentioned and the idea of the abolition of slavery in the United States at the one end of the chain and the political area of Liberia at the other could be similarly studied. But field theory is not limited to states alone; not even to politically organized areas



alone. For example, ideas and decisions may affect unorganized areas such as the Mediterranean theatre: cf. Mussolini's dream of a new Roman Empire creating and controlling movement over the entire sea and adjacent lands. Even such a relatively abstract concept as national power can be studied by means of the theory, according to Jones, if one accepts that " ... power is participation in the making of decisions ..." or that " ... power is necessary before an idea can produce movement." (De Blij, 1973, p. 303). De Blij has applied the unified field theory to such widely differing studies as Uganda and the Problem of Politics (1964) and Wildlife Conservation Areas in East Africa (1969). But of greater pertinence to the present study is Jones' (1954, p.120) explicit statement that " ... cities may be brought into the scope of the theory." Using Gottman's terminology, he suggests that many urban problems arise from the fact that the circulation of a city expands faster than its iconography. The city may, for example, outgrow its legal limits, a metropolitan idea may develop, leading to further growth, attraction to, and movement in, a new area. On the other hand, vested local interests and loyalties may make expansion difficult. In short, " ... the urban problem is to make the political area fit the field" (Jones, 1954, p.120 ). But it is not only the problems of cities that fall within the scope of the theory. It is also the problems of researchers attempting to gain an insight into this class of political area. Planning decisions result from a legal and political process (Harrison, 1972, p. 254) and these can influence the very nature of an urban area. Ideology is a major factor in town and country planning, but generally academic studies of cities neglect politics, law and ideology (Jones' ideas and decisions) to the detriment of full comprehension (Harrison, 1972, p. 254). The application of Jones' theory can help fill this void, and assist in providing a clearer understanding of the complex totality of the urban scene.



### Critique

Naturally unified field theory has its shortcomings. Jones himself admits that it is essentially a guide to study rather than a deterministic law of political development. A given idea might, under differing circumstances, lead to a variety of areas; a variety of ideas may conceivably lead to similar areas. Muir (1975) finds Jones' theory historically orientated, imposing a rather restrictive analytical sequence upon the researcher. It may be criticised for vagueness, generalization or even for being self-evident. But it is these very attributes which account for the universality of the theory. Muir (1975) recognizes this universality and points out that it is the longest established and best known of the holistic approaches to political geography. De Blij (1973) suggests that it provides a nomenclature, a way of condensing a paragraph into a word, and holds that even if the terms were to disappear, ideas would have been clarified in the word-coining. But a theory needs to do more than this if it is to contribute to the body of principles or doctrine in the subject. Cohen and Rosenthal (1971) suggest that political geographical method should link effectively both political process and its spatial attributes. It should also identify political processes, pinpoint spatially significant phenomena which relate to the processes, observe the impact of these phenomena and connect one process or part thereof to another. They argue that the political geographer should focus not only on the processes, ideas and decisions, but also on the spatial expression thereof; i.e. on political areas. In this work they " ... follow directly the direction established by Jones" (De Blij, 1973, p. 317). Prescott (1959, 1965, 1968) has consistently supported the view that political decisions and the resultant actions (movements) and forms (areas), are the logical field of study of the political geographer.

Again in 1972 he reaffirmed his support for Jones' theory, and suggested that political geographers should analyse the reciprocal relationships between politics (ideas and decisions) and geography (fields and political areas). De Blij (1973) holds that unified field theory may reduce the apparent diversity of aims and methods in political geography, help to unify not only the theories of political geography, but of political theory in general. It can complete the tie between form and function, between region and process, and show a relationship between grand ideas and the earth's surface. Muir (1975) regards the theory as the most universally applicable in political geographical theory and hails it as an important theoretical innovation, holding promise of further conceptual advance.

In the light of the foregoing the question may legitimately be raised why there has not been greater application of the theory. It must be admitted that certain difficulties arise in the practical application thereof. The ideas on which supra-national and regional organisations are based are usually carefully formulated and publicly debated. The decisions which bring them into being are included in widely publicized international treaties which are there for all to examine. But in the case of many international organizations the political area they encompass is a vague, non-contiguous patchwork, often unstable, and under uncertain control, with limited function in terms of practical politics. The geographic and political areas of national units on the other hand are more tangible, but the ideas and decisions behind the creation of many of the world's states are not always clear. Though constitutions and national characteristics often provide clues, and historians can usually assist, complexity and uncertainty remain important obstacles. In the case of local government areas the size is usually more manageable for the student, statistics more

readily available and research easier to conduct, but human whim, official fancy, convenience or even chance may have been the reason behind the founding of a settlement or the delimitation of a division. There is, nevertheless, one political area at this level of the hierarchy that lends itself to the application of the theory. Throughout urban history but especially since the second world war a new type of urban settlement has arisen in many parts of the world. These are new towns which have been brought into existence by unambiguous political decisions in order to fulfil certain well defined ideas and ideals. Movement is often well documented and usually relatively easily measurable; the field definable; and the area definite. Yet even so unified field theory cannot, and should not be expected to, provide an ultimate answer to any question. It is rather a tool for better work, a map for the guidance of the political geographer, indicating both where he has been and where he may go in search of explanations of political patterns. It is as such that unified field theory will be used in this study.

Though Whittlesey (1939), Hartshorne (1950), Gottman (1951, 1952), Jones (1954) and Alexander (1963), amongst others, have concentrated on political areas, and especially the state area, this was not the only aspect of political geography to excite interest. Van Valkenburg and Stotz (1954), Pounds (1963), Prescott (1972), De Blij (1973) and Muir (1975), have all concentrated to a greater or lesser degree on political elements rather than political areas. Amongst "... the most obvious politicogeographic features that exist ..." are boundaries (De Blij, 1973, p. 127) and consequently political geography is rich in boundary studies. Early studies classified boundaries as good or bad, natural or artificial, old or young, antecedent or superimposed. Jones (1932, 1937), Boggs (1940) and

Hartshorne (1933), followed in the same general direction, but have constructed " ... far more precise and useful ..." generic concepts and categories than any that were previously available (Hartshorne, in James and Jones, 1954, p.214). However belief is growing that the economic and psychological functioning of boundaries is of greater moment than mere classification. At present, the " ... geographical study of boundaries ... is very much concerned with human behaviour ..." (Prescott, 1972, p. 55) as the boundary can only influence the landscape by influencing the thoughts, actions and perceptions of individuals concerned with administering the boundary or living in the borderlands. Pounds (1963) distinguishes between weak boundaries where crossing is not actively impeded (e.g. the boundary between the United States and Canada or those separating the member countries of the European Economic Community) and strong boundaries, where many obstacles are placed in the way of across-boundary contact (e.g. Angola and South West Africa or East and West Germany). Perception of the relative strength or weakness of boundaries by both governments and individuals will control the extent to which the border will act as a barrier to economic and social processes, and restrict the flow of communications and the formation of social and psychological associations with areas and populations lying beyond the boundary. It is this movement, physical and social, economic and psychological, that needs to be examined, because if boundaries are studied only in relation to static distributions, the character of the barrier may be easily misinterpreted or distorted.

It is a relatively easy task to measure attitudes and movements in the case of an existing boundary, but in the present study it will be necessary to attempt to do so for one which has not yet become reality. By means of questionnaires to residents, interviews with officials, the examination

of ideas and the study of existing examples, it is believed that insights can be gained into perceptions of the possible future barrier between South Africa and Ciskei, East London and Mdantsane and in the light thereof postulations will be attempted on its likely influence should it materialize. In this way it is hoped to come to a clearer understanding of the way the Border/Ciskei field in general will develop and in particular how the urban and political area of Mdantsane will be influenced.



## CHAPTER 2

## URBAN SETTLEMENTS AND UNIFIED FIELD THEORY

Urban settlements reflect the interaction of a wide variety of factors which find expression in the visible, built-up area on the one hand and the less tangible, but equally important relationship with the environment on the other. The built-up area, with its fixed boundary lines and its governing body, which commonly consists of an elected mayor (sometimes replaced by an appointed manager) and council, is generally referred to as the 'legal city' (Murphy, 1966) and it is this legal city which is the true political area in terms of unified field theory and which is incorporated in the hierarchy of political areas. However this political area cannot exist or function in a vacuum: any urban settlement must be linked to some extent with other places, both urban and rural, outside its own limits (Johnson, 1967). The area linked socially and economically to an urban settlement is variously known as the hinterland, umland, tributary area, service area or sphere of influence. Smailes (1953) uses instead the term 'urban field', an important coincidence in the light of unified field theory, for if the legal or built-up city is to be regarded as Jones' political area, then the sphere of influence is logically his field, that 'framework within which movements occur and the effects thereof are felt.'

Though a considerable amount of research has been done by geographers and non-geographers alike on spheres of influence, a large proportion of urban theory and empirical work is applied to the built-up area alone rather than to the entire urban field, despite the fact that an analysis of the city's relationship with its surrounding area brings a better understanding of the

city itself (Murphy, 1966). However, full comprehension is dependent on more than simply the analysis of the built-up area and its reciprocal relationship with surrounding areas. The dominant characteristics of any political area result from the ideas and decisions of people with the wit and the will to implement them. These characteristics develop through the interaction between city and umland, political area and field, but also between ideas and decisions and may be directly attributed to the political, historical and economic climate in which the political area has developed. Sitte (1889) suggested almost a century ago that the city was an expression of the ideas, ambitions and way of life of the community: Ebenezer Howard (1898) proposed new ideas to produce a new environment: le Corbusier (1939, 1947) claims that it is the ideas of architects, authorities and planners rather than roads, plots and building lines which result in either monotonous patterns of living or imaginative 'cities beautiful'. March (1972) suggests that the basic form of American cities is the direct result of the ideas of Thomas Jefferson concerning the subdivision of land, and subsequently embodied in the political decisions which culminated in the 1785 land ordinance and which produced a huge network of gridded survey lines across a large portion of the United States of America. In suggesting the replacement of towers with courts, what may logically appear to be the 'universal panacea' for urban ills, March points out that nobody may want his remedy, and unless the idea is acceptable to those who formulate policy, unless the ideas are translated by decisions into action, there is no movement, no progress, and no political area.

#### The relationship between political ideas and urban settlements

Theoretically there should be no misconception about the nature of the

political ideas which form the basis of political areas at whatever level of the political hierarchy they may lie. As suggested by Jones (1954) and supported by historical fact however political ideas are often ill-defined and non-official. Such ideas may be continually changing and developing, or they may stagnate for long periods and then suddenly undergo marked alteration. Resultant decisions may be legal and enforceable, affecting entire communities, or non-governmental, unenforced and unenforceable, and pertaining to the individual. Be that as it may, the ideas invariably appear to mesh together to produce a single, if complex, entity under laissez faire development. For example, the political and historical beliefs and needs of the people of the middle ages, when the idea of the town as a centre of physical or spiritual security was dominant, resulted in a very different built form and relationship with surrounding areas, and a very different type of political control, from that which developed out of the needs and ideals of those involved in the industrial revolution. Likewise, the economy of a subsistence culture will not produce the same type of settlement as the economy of an industrial giant. Even within a single economy the realities of financial position leave their mark clearly visible on the housing of rich and poor, the shops of the flourishing and the struggling, the offices of the haves and the have-nots. Walled cities were the product of a particular political situation, Victorian elegance the reflection of a special historical milieu, Georgian uniformity the penalty of a distinct economic climate. It is thus the ideas of the architects and clients which lend a particular character to a building or area; the decisions of legislators which allow or prevent, encourage or discourage development, the field of economics which has the final say in what can or cannot be erected at a particular time.



The preceding concepts are largely historically based, but the belief that ideas and decisions, both governmental and private, institutional and individual, are reflected in built form is also supported by urban geographic theory and the structure of urban settlements themselves. Clearly the separation of residence and industry, administration and education, etc., is based on a decision founded in an idea. Burgess (1923) in propounding his Concentric Theory of urban structure, claims that concentric zones of land use are to be found in urban settlements. Such zones, particularly in the case of residential areas, presuppose certain individual and group ideas on what is desirable in terms of urban residence. Working men, Burgess suggests, either as a result of their own ideas, or ideas forced upon them by others, or by an inability to compete with the desires of others, find themselves living close to their work. This may not be the most desirable part of town scenically or socially, but it does obviate large spending on transport and generally provides easy access to facilities. Higher income residents on the other hand, with their greater general mobility based on the ability to afford private transport and bear the cost of commuting, are free to choose the generally newer, often larger and commonly more desirable suburban residential areas. Hoyt (1939) found evidence of various land use sectors rather than concentric zones. This may be attributed to the idea of social or class distinction as well as the concept of separation of places of work and residence, in particular in respect of residential decision making on the part of upper income groups. Harris and Ullman (1945) elaborated on the theories of urban structure devised by Burgess and Hoyt and in their Multiple Nuclei Theory produce results which accord more closely with reality. This theory not only makes greater allowances than its predecessors for peculiarities of site, but also takes account of general economic and social ideas and leaves room for group

assessments of what may be regarded as a desirable environment for any particular activity. Economic ideas on what special facilities are needed for optimum effectiveness have resulted in urban CBDs or clusters of related undertakings in clothing districts, automobile rows, lawyers areas, etc. Likewise, social ideas on undesirable neighbours commonly resist the close juxtaposition of heavy industry and high income housing. Financial means or the lack thereof, while it cannot alter what is desirable, certainly conditions ideas on what is acceptable, and forces individuals and undertakings alike to take decisions regarding the location of residence or activity and the entire structure of any settlement is consequently to an extent the product of man's ideas on what is socially desirable and economically feasible. Chapin (1965) takes the concept of the relationship of ideas and urban patterns even further. He suggests that the entire urban scene and its land use patterns are the outcome of human ideas, and maintains that certain individual or group held values concerning the use of a particular piece of land or area set in motion a four phase cycle of behaviour which culminates in the land being put to a particular use. (Figure 3).

Needs and wants are experienced and this leads to the defining of goals, from which planning alternatives emerge. Decisions and actions result, which in turn are reflected in the land use patterns. The institution and individuals within the urban area are linked to and associated with others, both inside and outside the urban settlement. These links require the movement of goods and people, and the exchange of information. The resultant activities may be divided into three subtypes:

- a) Routine activities, which reflect the standard patterns of movement of the individual, such as the journey to shop or to work.
- b) Institutionalized activities, which are concentrated onto particular points by specialized institutions; for example a sports stadium

- necessarily focuses a number of individual activity systems on itself.
- c) Organization of process, the most complex type of activity system, wherein there exists a whole series of patterned cross relationships. For example the activity system of a bank, by the very nature of its business, will be made up of a wide array of associated but different links. A sub branch may have links with a main branch, a main branch with head office, with the reserve bank, with other institutions and with clients both private and commercial. Money will come in, and money will go out. Loans may be met or raised, export transactions handled, hire-purchase agreements entered into, etc. etc. But in particular there is the organization of various processes in response to governmental demands, prescriptions and limits, and the effect thereof on human and economic action.

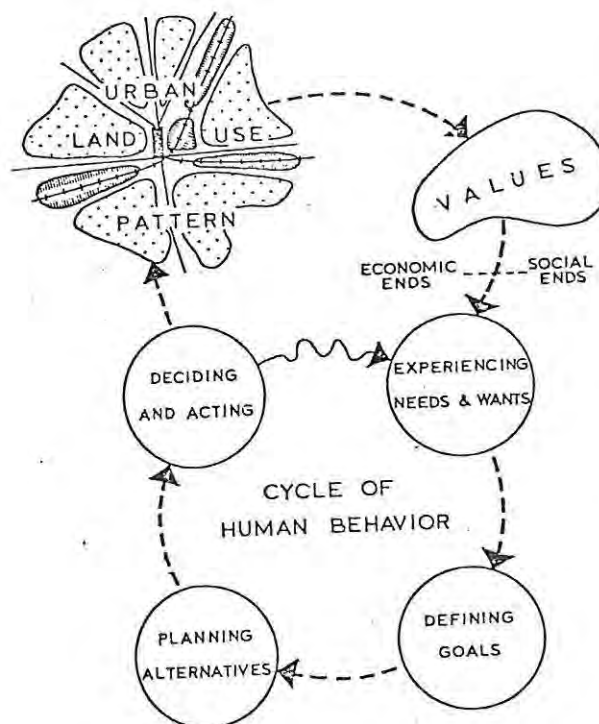


Figure 3: The Influence of Group-Held Values on Urban Land Use. (Chapin, 1964)

Study of such links leads directly to the consideration of the entire relationship of the institution and other areas, not only with the rest of the settlement but also with the surrounding area, should such a relationship exist. Chapin's approach thus allows for the analysis of both the inner diversity of function and the role of the city as focus of its region.

There are important similarities between the work of Chapin and that of Jones. The needs, goals and alternatives of Chapin correspond largely to the ideas of Jones, and both recognize the culmination of the conceptual realm in decisions. Jones' movement is the equivalent of Chapin's action, and both culminate in a physical form which is the direct reflection of the chain of events triggered in the first place by an idea. However, these ideas are not static and as a result throughout their development urban settlements have illustrated and been subject to change. Jones emphasizes reverse flow and conditioning, and Figure 3 in similar vein illustrates the influence that Chapin feels decisions and movements can have on needs and wants, the effect that the political area can ultimately have in shaping values and ideas.

One such change has been associated with the impact of developments in local transport, both public and private, which has particularly during the present century encouraged urban dispersal of both residential and other functions, particularly manufacturing. The result is a more loosely structured urban scene, with larger populations covering larger areas. As growth proceeds, developing towns may swallow their smaller neighbours and cities extend towards one another, encroaching upon each other's hinterlands and in some cases eventually even coalescing. The most dramatic example of such a situation has occurred along the north-

eastern seaboard of the United States where there is a continuous stretch of urban and suburban land use almost 1 000 km long, housing some 40 million people. While this is the greatest example of a multi-urban district, it is not the only one, and in the majority of cases coalescence is not complete. Where such multi-urban areas have grown up from different cores, the result has usually been that one of the original cities has achieved dominance over its neighbours, and while the centres remain politically disparate, they tend to form a single geographic entity based on the dominant city. No single idea can be said to have lead to such growth and laissez faire development has produced numerous examples of urban settlements in close proximity to one another. Hartshorne (1932) suggests that where cities exist in close proximity, stunted development in one or all of them is likely to remain a feature and even escalate in intensity despite the fact that such cities may remain politically separate. In the case of Omaha-Council Bluffs each city contains only half a commercial core; Jersey City, overshadowed by its more illustrious neighbour, New York City, has an atrophied centre; Detroit is surrounded by partially-developed satellite towns. But there is evidence that even this apparently natural and logical chain of events can be upset by a political idea. Hartshorne (1932) cites the example of the so-called 'twin cities' of Minneapolis and St Paul. The attitudes and ideas of the inhabitants of these two cities, rooted in the 'violent animosity' of a struggle for supremacy, have combined to prevent "almost every kind of corporate development" (Hartshorne, 1932, p. 436), and thwart virtually any sort of differentiation or integration. Decisions are taken by separate city planning boards and implemented by separate councils as if for separate cities in separate counties. As a result, each has its own railway station and terminal yards, factories, warehouses, jobbing houses, and commercial core with all the nuclear features such as large departmental stores,



newspapers, office buildings, hotels and theatres and despite their similar size, they display a notable lack of functional integration. With the exception of two bridges, no public amenities of any kind have been constructed jointly for the use of the residents of both cities.

The separation extends to movements as well, as Hartshorne found only a minor amount of inter-city travel, few people accustomed to shopping in the commercial core of the other city and a duplication of theatrical performances in the two cities 'as though they were a hundred miles apart.' In fact, he found two "... almost complete cities separated, not merely politically but geographically, and yet in close contact with each other along one common zone" (Hartshorne, 1932, p. 431). Separatist ideas kept the political areas distinct, and the separation of the cities continued to condition the ideas for many years to come, as reported by Borchert (1961) when he studied the same cities to ascertain what changes, if any, had occurred in the trends isolated by Hartshorne. "The trends that Hartshorne noted in ... 1932 have persisted, and they can be expected to continue ... The Twin Cities metropolitan area has remained a 'unique form of urban landscape'" (Borchert, 1961, p. 69). This has occurred almost solely as a consequence of political ideas resulting in a related chain of events of the type postulated by Jones.

The examples of urban settlements referred to above, though all reflecting various ideas, cannot be said to be based entirely on any single idea. They have developed under a system of laissez faire and are a complex mosaic of features and factors indicative of an enormous variety of ideas, concepts, conditions and circumstances, none of which necessarily directly includes the development of a particular type, class or size of



city, or for that matter a city at all. Ideas already referred to have tended to focus on needs and the means of achieving them rather than on ends and end products. Nevertheless, there is a long history of attempts at designing total urban settlements to meet some ideal prescription. Aristotle and Plato both wrote of the perfect town or city, self-supporting and limited in size to provide a cohesive social unit, and the idea has recurred in different countries throughout recorded history. Mumford (1961) mentions early Greek examples and Beresford (1967) suggests that about four hundred deliberately planted towns were developed in medieval England, Wales and Gascony alone, while Martin (1972) hints at others in ancient history. Inevitably there are conflicting ideas on the norms on which such developments should be based, but generally one or other idea emerges as the dominant one, and it is this idea which is most clearly reflected in the resultant political area.

The Greeks introduced planned cities based largely on economic ideas as early as the sixth century B.C., and these towns were the "... direct expression of an essentially mercantile society." (Mumford, 1961, p. 190). Examples of conscious urban design were clearly evident in Britain in the thirteenth century (Cherry, 1972) and apparently economic ideas were dominant in this case as well. In 1296 for example, King Edward I commanded his planners to "... devise, order and array a new town to the greatest profit of ourselves and merchants." (Schaffer, 1970, p. 1). It was during the nineteenth century that social ideas began to assume greater importance and in answer to the need for improved living conditions in industrial societies, factory owners built a number of model towns in Britain (cf. Robert Owen, Cadbury and Lever and their developments at Bourneville and Port Sunlight), Europe (e.g. Fourier,

Rumford) and the U.S.A. (e.g. Lawrence, Lowell and Pullman). However, these efforts were concentrated largely on the sphere of housing only and were so few in proportion to the real problem that they contributed little to the solution thereof (Gallion and Eisner, 1963). As the predominant idea was simply that of housing workers the built up political area became merely a dormitory. It was not until the present century that urban planning was approached on a national scale, as epitomised in developments in the United Kingdom and for the first time ideas were formulated, decisions implemented and a total policy evolved on a nation-wide basis. The ideas were no longer limited to immediate needs or present requirements, but envisaged a total concept, and the term 'planned settlement' at last came to mean just that: these new towns were planned from start to finish within the context of the overall social, economic and political conditions of the whole country.

#### Planned Settlements

Planned settlements may be taken to include all urban areas which were brought into being by a specific, formal political decision in response to a definite and considered political idea. This political idea may vary from country to country, even from settlement to settlement within certain countries. However, three main idea-streams can be isolated: ideas concerning social improvement, ideas based on political expedience and ideas pertaining to economic considerations. In each case the development of the planned settlement can be traced through the various links in the chain of events as suggested in Jones' unified field theory and the resultant urban area can be regarded as reflecting the dominant idea, though not necessarily the explicit one.

### Idea of Social Improvement

Nowhere is there greater evidence of each link in the chain from idea to political area than in the United Kingdom. The British experiment will be considered in some detail as it is the forerunner of similar experiments elsewhere, the prototype on which other countries based their new town policies. From the original idea that man could do better than build soulless suburbia, ribbon developments, single industry towns and one class housing estates there arose a new awareness of urban problems. It was felt that cities should not go on expanding until all their people were engulfed in bricks and mortar, cut off from the open countryside, and that obsolete, overcrowded, slum-ridden cities could be thinned out and transformed into decent centres of living. These ideas generated a number of political decisions, focussing first on housing alone, but eventually on the full fabric of urban development.

The 1909 Housing and Town Planning Act in Britain was the first major governmental step in decision making which led on to large-scale urban planning. This decision was followed by the 1919 and 1923 extensions to the Act and in 1925 planning functions were finally separated from the field of housing alone. In 1932 the Act was further modified and in 1937 the formation of the Royal Commission on the Distribution of the Industrial Population had "... a marked influence on government thinking" (Shaffer, 1970, p. 10). This commission tabled its report in 1940, and it included a minority recommendation focussing on a modified idea which pleaded for the establishment of a central Planning Ministry and for the building of garden cities or satellite towns. It also highlighted the necessity for special powers to deal with overcrowded city areas. This recommendation in 1941 led to the creation of two committees, the Uthwatt

Committee on Compensation and Betterment and the Scott Committee on Land Utilization in Rural Areas, both of which completed their work before the end of World War II and provided the idea on which British urban planning was able to build and make decisions in the post-war years.

Acceptance of the idea that more than a million people would have to be moved from the central districts of London to allow for redevelopment after World War II set up a ripple effect which was to have significant results. New ideas were generated which led to suggestions for the creation of alternative urban environments to cater for the displaced population, and thence to the concept of new towns, something far more comprehensive than the original idea of mere replacement of housing. In October 1945 an Advisory Committee under the chairmanship of Lord Reith was appointed to " ... consider the general questions of the establishment, development, organization and administration that will arise in the promotion of new towns ... and to suggest guiding principles on which such towns should be established ..." (Schaffer, 1970, p. 17). Again the ideas were made explicit and the recommendations of the Reith Committee were thereafter embodied in the various political decisions which followed, viz. the New Towns Act of 1946, the Town and Country Planning Act of 1947 and the National Parks Act of 1948. At last the way was open for the designation of the first of the new towns.

The idea behind the building of the majority of British new towns was basically one of social improvement: to relieve pressure and overcrowding in the " ... repulsive and inefficient existing urban settlements" (Cherry, 1972, p. 157). There was strong reaction to the social decay associated with the inner suburbs, originally of London, but later also of Birmingham, Liverpool, Manchester and Glasgow. The majority of

the new towns were built within a belt 30-50 km from the central city - not near enough to coalesce with it, destroy a green belt or encourage commuting, but not so far as to break commercial and industrial ties or split up families too much. Associated with the idea of improving the social milieu, there was also an economic component, related to a desire to decentralize by moving industries out of existing population concentrations. In a few cases the idea was primarily economic: for example to provide housing for workers in particular industries or to encourage economic development of particular areas e.g. Llantrisant (Rhonda Valley), Ashford (South-east England, linked to the Channel Tunnel concept), Preston - Leyland - Chorley (revival in central Lancashire) and Washington (to help solve the economic problems of the Tyneside).

#### Conceptual Characteristics

The concept basic to the establishment of a new town was thus that it should be an independent, self-contained and balanced community for both working and living. As a result the new town requires " ... all facilities that make an independent environment ..." (Gallion & Eisner, 1961, p. 138) and a population large enough to allow for efficient industrial organization and full social activity. 'Self-containment' demands not only that the level of employment approximately matches the level of population demand, but also entails sufficient variety of employment to make journeys to work outside the new town boundaries unnecessary. The town also requires an adequate range of commercial, educational, cultural and recreational facilities to serve the regular needs of the inhabitants. Self-containment can obviously only be assessed in relative terms. It is unrealistic to expect that local facilities could meet all the requirements of all the residents all the time, and new towns ideally should be close enough to



central cities to make available to the population the specialized functions of metropolitan centres.

A 'balanced' community is one in which all social groups, a wide variety of occupational types and a normal age and sex distribution are to be found. Achievement of this state of balance presupposes the establishment not only of factories, businesses and services meeting local needs, but also the existence of head-offices, government departments, administrative and research establishments, and that the towns should prove attractive to artists, writers, retired people and others of 'independent means'.

In order to achieve the above characteristics a degree of social cohesion is deemed necessary. In the new towns it is encompassed in the neighbourhood concept (Fig. 4). Neighbourhoods may vary in size from units housing from 3 000 up to 10 000 persons. Each has its own shopping centre catering for daily needs, schools, both nursery and primary, churches and recreational facilities within walking distance of all the dwelling units and is free of major traffic arteries. The various neighbourhoods are clustered round the business and civic centre which caters for less regular or higher order needs. Industrial areas are separated from residential areas, but the whole is easily accessible to any of the parts. In one or two later cases the towns were designed as single units focussed on one centre, thus dispensing with the neighbourhood concept, but in the newest plans the neighbourhood is again envisaged, though sometimes grouped in linear rather than cluster fashion.

#### Physical Characteristics

The resultant political area clearly reflects the original ideas as expressed





relationships of the crowded slums and near-slums of the metropolis, and the fear of encroachment on agricultural land. But in fact even the original densities of 32-37 persons per hectare are " ... appreciably greater than most older towns of comparable size in Britain" (Osborn and Whittick, 1963, p. 111) and Best (1964), comes to the conclusion that " ... there are no low density new towns". Despite Best's (1964) criticism that the spaciousness recommended by the Reith Committee had not been attained, densities have in fact increased in the newer plans.

Architecturally there can be little well-founded criticism of the new towns. Use of a large number of architects has ensured a wide variety of designs and treatment, though obviously the towns are the products of the same basic idea, the same period, the same country and the same economic and social circumstances and, as such, must display similarities of idiom. This is another reason why ample space, gardens and generous landscaping are important - vegetative surroundings with their seasonal changes can often provide far greater variety than architectural design.

Dwelling units themselves vary from bedsitters in an occasional tower block to five-bedroomed houses: from subsidized, cheap-to-rent council houses to owner-occupied executive homes, some located on corporation land, others on leased land and a certain proportion on bought land. About 15% of the dwellings are specifically designed for the aged and there are also those suitable for the young bachelor or for the family man. Indeed, in keeping with the concept of balance espoused at the outset, " ... the whole range of types, incomes, and tastes that make up a community can ... find a home to suit them" (Schaffer, 1970, p. 93).

Commercial Features. Commercial establishments are "distributed around the town in a way that best serves the convenience of the people" (Schaffer, 1970, p. 118). In addition to isolated corner stores and neighbourhood shopping centres consisting of about 'fifteen or twenty shops' (Schaffer, 1970, p. 119) catering for daily needs, including, for example, butcher, baker, grocer, chemist, newsagent and pub, the new towns have well developed commercial centres providing mainly durable goods and serving the longer-term needs of the entire community, as well as residents in the catchment areas outside the town. Open-stall markets and, in the early new towns, travelling shops, have proved popular, and the only major lack is a shortage of stores providing for high-order shopping facilities. Obviously a local shopping centre catering for 50 000 people cannot vie with one in the metropolis catering for a million in this sphere. Nevertheless the commercial areas display a notable variety in relation to town size areas, catering for as many different types of undertaking as is feasible for the projected population, and housing them in everything from fairly conventional 'high streets' to enclosed squares and all-pedestrian precincts. Latterly the emphasis has fallen on comprehensive, integrated 'town centres' rather than 'shopping centres', and the design includes provision for shops, civic services, commercial offices, recreational and sporting facilities interspersed with dwelling units and all grouped round vehicle-free covered walks and internal squares, in one case even linked to the County College. The greatest merit, present even in the architecturally unexciting town centres, is the fact that all have been conceived, designed and built as a comprehensive functional unit.

Industrial Areas. In keeping with the concept of self-sufficiency, industries are regarded as essential in new towns and in line with the principle of balance, industrial variation is demanded. Single-industry

towns are unacceptable, and where new towns have in fact been founded to serve a struggling industry, plans for early diversification have been drawn up from the outset.

Ready road and/or rail access is a prerequisite for industrial areas, but the original concept of a single industrial area in the lee of the town has been abandoned. Modern industrial methods have all but removed the industrial nuisance value and harmonious design of factories has made them acceptable, even in residential areas. Furthermore the advantages of employment near home, and problems associated with one-way traffic flow in opposite directions in the morning and evening rush hours are obviated.

Recreational facilities. Generally the new towns are better catered for than old towns of comparable size and status in respect of recreational facilities. Each neighbourhood has its own community hall. Cinemas, bowling alleys, dance halls, theatres, clubs, horse-riding facilities, golf clubs and facilities for watersport have been provided as required by demand - and allowed by finance. Several new towns have 'magnificent' outdoor sporting facilities (Schaffer, 1970) and in many cases school fields are available for the use of residents after hours. There are well-patronized neighbourhood and central pubs, and all buildings have been designed for adaptability to cater for changing leisure time tastes. Again within the limits imposed by population totals and associated aspects of finance, self-sufficiency and community participation are the main recreational goals.

#### Achievement

Osborn and Whittick (1963, p. 144) " ... claim full success for the first stages of the British experiment ..." In terms of the social content of the idea there is some justification for their claim. The new towns

provide "... good homes in healthy pleasant ... surroundings ..." (Osborn and Whittick, 1963, p. 144) and they are generally well endowed with schools, churches and recreational facilities. However, good housing and generous allocation of facilities is on its own no guarantee of a stimulating environment. For example Turner (1974) reports that the British new towns have produced some extremely boring and barren areas of housing in no way better than any other public housing, and the Architectural Review has called them a 'sick remedy' (October 1973, p. 227). On the whole, though, attention to detail at both the planning and building stages and unity of purpose at all levels has helped turn what could have been a dreary succession of housing estates into 'interesting and satisfying' places to live. To the surprise of the critics, not only do the new towns by and large house a 'satisfied community': many are financially profitable (Schaffer 1970). Already some have ceased to be 'new' towns and have taken their place in the economic and social life of the regions in which they are situated. But in other respects the achievement does not match the idea. A town is not merely a social entity, and the dominance of the social idea at the outset appears in some cases to have led to the neglect of other ideas with the result that 'the city does not fit the field': indeed, where a settlement has grown out of social ideas can it fit an economic field? A common failure has been in respect of the declared aim of balancing the community as is illustrated by the low proportion of unskilled and underprivileged people who move there (Self, 1975). Roderick (1971) reports difficulties in recruiting workers and Alonso (1969) indicates that the idea of self-containment in respect of employment is not working. While there is an approximate balance between prospective employees and employment opportunities available in the new towns, people are still commuting to and from jobs outside the town limits. Alonso (1969) reports that 7,3 workers enter and leave the town in their daily trip to work for



every 10 who live and work in the same town. Tension 'commonly occurs' between residents and developers. Social balance is being upset by the fact that "... higher classes<sup>(1)</sup> have tended to leave the towns and that residential areas are differentiating by social class" (Heraud, 1968; in Alonso, 1969, p. 47). Clearly then, the idea of social balance and self-containment as reflected in the ultimate built up area cannot be regarded as being as Utopian.

Despite its shortcomings, the British new towns movement has conditioned ideas on this type of development worldwide; other instances where social ideas appear to dominate are not common, but the social component would appear to be a factor in virtually every new town developed anywhere in the world. All, at least overtly, aim at creating a happy, balanced community in a town designed with the social needs of the residents in mind. American new towns aim at 'a better place to live', South African new towns at 'all the amenities for a full life,' and in Venezuela the aim is to 'cater for the population displaced from the normal social milieu by major resource developments.' Nevertheless, in many cases other ideas have outweighed, or at least been coupled with the social idea, and thus all new towns should not be regarded as socially-orientated experiments.

#### Idea of Political Development

Though the British new towns were introduced by politicians, implemented by the government, overseen by parliamentary ministers and are still

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(1) The term "class" occurs regularly in articles without being defined. It is assumed that financial means is usually the sole criterion, though culture, education and employment may sometimes be included.



dependent on political decisions, it has been pointed out that they reflect social rather than political ideas. However there is a group of planned settlements that are not merely implemented by political machinery, but are based largely on political expediency. As Friedman (1968, p. 364) suggests, the city may be a " ... decisive agent in the transformation of societies into modern ... nation states." The capital city is especially important in this respect as in most countries it is regarded as something more than simply the seat of the legislature; it also has the role of " ... focusing sentiment and strengthening the bonds which hold the nation together" (Pounds, 1963, p. 192). There are many examples of planned capitals which have been designed to " ... play a unifying role ... and ... provide a symbol of political unity ..." (East and Prescott, 1975, p. 116). Lilongwe was built as a symbol of the new independent spirit of Malawi, Ottawa was placed between the English and French-speaking provinces of Canada, Washington was intended to assist in and symbolize the unification of an industrial north and agricultural south, and Canberra was an attempt to nullify the effects of the intense rivalry between Sydney and Melbourne. Furthermore a capital may be erected near to the most actively advancing or retreating margin of the state (Muir, 1975). For example Islamabad was located in the northern frontier area of Pakistan overlooking contested territory, and Brasilia was sited to direct attention towards the underdeveloped interior of Brazil.

The political role of urban settlements is not limited to capital cities alone. Friedman (1968) regards all cities as having a political role, and suggests the planned construction of new towns to achieve political goals. This concept is most clearly illustrated by the work of Israeli planners.

### The Israeli Experience

Since 1948 the Israelis have been systematically creating in the underdeveloped and underpopulated rural areas of the state, a hierarchy of some thirty new towns, nineteen of them on virgin sites. The basic idea has been to provide " ... the foundation of a national community; ... to promote national security (and) to assert the Jewish presence throughout the land." (Ash, 1974, p. 387). While social content in these planned developments remains important, it would appear that political considerations are the main driving force behind the establishment of the settlements. They have been built not only with an ultimate size and hierarchical position in mind, but also at a specific location to promote national and social solidarity as a means of shaping a new urban way of life which would assist Israel to become a social democracy, an essential prerequisite for survival in a small country with scant natural resources (Ash, 1974).

Stemming from these ideas, in 1948, shortly after independence, it was decided to proceed with the new towns project. In one of its first political decisions, the government assumed strong powers to implement a national planning policy, proclaimed ownership over all land outside the big cities and implemented planning controls to check development outside the new towns. Local and district planning decisions were kept in line with national strategy by government officials who were attached to local bodies as advisors. It was decided to offer substantial incentives to those private industries prepared to decentralize. In addition, state and quasi-state industries were founded in the new towns or on land adjacent to them where environmental impact or security required it: for example, a chemical plant and nuclear reactor have been established between Arad and Dimona. In order to populate the towns the Housing

Ministry provided housing for immigrants, and veteran Israelis were granted considerable tax reductions if they settled in a new town. These decisions were to have a considerable impact on movements of people within the state and as a result also on settlement patterns and population distribution. Israelis, both 'new' and 'veteran', were persuaded to leave the densely-populated coastal areas, long the most popular part to live, and in the thirty new towns under development in various parts of Israel this has resulted in the movement of about 600 000 people for the purpose of settlement. The residents represent about 20% of the total population of the state. This movement is not permanent in all cases and though Ash (1974) holds that the communities are 'stable', internal migration to and from the new towns has become a feature of the settlements. In the case of Eilat such internal migration represents a gross turnover of 310 residents per thousand (Berler, 1970) and one third of outmigrants move out within their first year (Ash, 1974).

Soon after the Israeli new towns came into existence it became clear that the resultant political areas were unsatisfactory and had to be changed. The first plans had provided for low residential densities and buildings consisted largely of two storey, free standing, easily extendable rectangular blocks of four flats or single storey but similarly uninspiring, prefabricated houses on a grid street pattern (Ash, 1974). There was private open space around the dwellings as in the English model; but gardening in Israel was neither as cheap, easy or socially obligatory as in England and the surroundings of buildings were not well kept (Spiegel, 1966). In addition, the strong influx of relatively backward immigrants from North Africa and Asia in particular threatened to overwhelm the veteran Israelis and to introduce an obsolete, foreign way of life and an

undesirable stratification of the population in what were becoming known as immigrant towns. In order to discourage the development of new and unacceptable ideas, orderliness became the keynote of planning in the new developments, higher density housing was introduced viz. sixty dwelling units per hectare, mostly in the form of four storey blocks of flats and integration was assisted by local Committees of Absorption. By the 1960's it became apparent that many of the new towns lacked a sound economic base or balanced population composition. Economic problems were most acute in the towns planned to remain small. Despite ample space for industry and attractive concessions offered, it has proved difficult to attract industry to the new towns, and this aspect remains one of their major problems and weaknesses. However though some of the new towns were not successful towns per se (Lichfield, 1970) the original ideas and needs (combined of course with financial considerations in respect of capital already invested in them) were strong enough to ensure that these towns were not abandoned and that the experiment should continue. Nevertheless, the grouping of smaller towns into larger clusters appeared desirable and has been attempted in the worst-developed areas. Since then the two wars and the constant struggle for national survival have created a stronger attachment to the community and commitment to the ideas behind planned urban development. What influence this will have on each political area in the long term remains to be seen.

Clearly in terms of the desire to create a viable urban hierarchy, the new towns policy of Israel cannot be regarded as a great success. However in terms of asserting the Jewish presence they have succeeded admirably and it would appear that in Government circles the concept is thought to work. In fact the Jerusalem satellites are a response to the idea of consolidation of the Israeli presence in the city. Further new settlements are also being



founded in disputed territory, apparently again with the aim of asserting the Jewish presence. But only time can give the final verdict.

#### Idea of Economic Development

There is a third group of planned settlements where the predominant idea is neither social nor political, but one that is based on economic considerations. In fact no less than 58% of the new towns listed by Osborne and Whittick (1963, p. 141-148) carry a rider indicating an economic reason for their foundation. These include not only the towns established solely to provide a base for a specific industry as in the case of Los Alamos and Oak Ridge (U.S.A.) but also the polder towns of the Netherlands, various mining towns such as Flin Flon (Canada), Mt. Isa (Australia) and Welkom (South Africa): and a smaller group established to revive an economically stagnant area, e.g. Peterlee, Washington, Irvine and Newtown. The influence of economic ideas is most marked in the new towns of the United States of America. Whereas the concepts espoused by the British have had a major influence on American planning, it would be wrong to regard the American new towns movement as merely a carbon copy of the British experiment. The approach in the United States is rather an eclectic one, drawing on the ideas of the British and the French architect and strong proponent of urban renewal, le Corbusier: following principles that have evolved out of the history of planning and development: and not least, giving due consideration to the principles of real estate marketing. In fact the notable feature in respect of new town development in the United States has been the emergence of the profit motive as an important idea. James Rouse, the developer of Columbia, made this explicit by saying that his new town would be regarded as a failure if it did not make an enormous profit (Turner, 1974). In addition, the environmental lobby sees new towns as a way of helping to preserve the natural

environment by good planning.

After the decades of politically relatively unfettered and undirected development in which private enterprise took the lead, the first legislation of direct relevance to the new town movement was passed in 1968. The Housing Act of that year, though not involving the Administration directly in the development of new communities, made certain financial arrangements to provide the necessary backing to enable developers to borrow money at favourable interest rates. This act gave rise in 1969 to state legislation in New York whereby the New York State Urban Development Corporation came into existence to assemble land and to undertake and control all development of new towns in the State.

The new ideas which crystallized from these disparate origins are embodied in the Housing and Urban Development Act of 1970, which lays down the criteria on which the new towns movement in the United States is based. They include the statement that a new community must

- (a) include most of the basic activities normally associated with a town, including adequate educational and social facilities,
- (b) combine these in a well-planned whole,
- (c) contribute to the social and economic welfare of the area,
- (d) provide employment such that the total work force be matched by an equivalent number of job opportunities,
- (e) provide an alternative to disorderly growth,
- (f) increase housing choice including the provision of housing for low income groups (Housing and Urban Development Act, 1970).

Although superficially there appears to be little difference between these ideas and those held in Britain, the consequences are far-reaching. The



intention in respect of American new towns is not necessarily to provide for all facilities and activities normally associated with a town, or to achieve full self-containment. Campbell (1976) holds that the majority of American new towns are in fact attempting to "... balance their profiles with commercial, industrial and residential activities". However, he regards it as unrealistic to expect any new town to exist entirely as an entity unto itself, and suggests that the criteria will have been satisfactorily met if, after development of a settlement is complete, half the population can enjoy living and working in the same town. In addition the 1970 Housing and Urban Development Act makes specific provision for satellites within existing metropolitan areas. These developments are to a greater or lesser extent dependent on an existing economic base. Twelve of the fifteen towns built between 1968 and 1974 fall into this group. The same act also makes provision for new-towns-in-town, which may take the form of major urban renewal, or the utilization of hitherto undeveloped land within the legal limits of existing cities and certain new towns of this type are now being used as experimental centres of innovation, the results of which can be applied to problems in existing cities, e.g. Minnesota Experimental City. Developers are expected to be as innovative as possible while taking cognizance of financial viability. Within the limits of the idea that economic factors are dominant, the variation in related concepts thus allows for a wide spectrum of new towns in the United States.

Turner (1974) reports a total movement of 860 000 people to the 15 new towns built in the United States, in terms of the 1968, 1969 and 1970 legislation, and a further unspecified movement to the 63 planned developments which came into existence before then. With few exceptions, such

as in the case of retirement communities, these people are young to middle aged, white and in the middle income group. Planned movement to the new towns by the turn of the century is 3 474 000 in 1 066 800 dwelling units. Predictions of total movement to planned communities vary between a 'most optimistic' 8 334 000 and a 'least optimistic' 3 097 000 by the year 2 000 (Turner, 1974, p. 262) and with only somewhere between 4 and 10% of the country's population growth being absorbed by these settlements, it would seem that the impact of this movement " ... may be relatively small ..." (Turner, 1974, p. 263).

The range of residential opportunities in U.S. towns reflects both the planners ideas and the developers feel for the market. High-density housing, for example, may be saleable in one area but not in another. As the new towns are much more market orientated than those in Britain the idea is to compete directly with conventional developments. To do so they have to be at least as attractive as their competitors. In addition there is more money available in the United States and " ... this can buy a lot of visual quality" (Turner, 1974, p. 429). The residents of the United States new towns are financially better off and better educated than those of conventional developments. As a result the residential areas contain a wide variety of house types, tenures, styles and layouts (Turner, 1974). However, new towns now provide housing for low and middle income families as well as for those who can afford housing at the normal market rates and the houses are divided very roughly in the following proportions: 70% market housing, 20% low income housing and 10% for the elderly. This ratio is reported to give the required social balance while maintaining a stable community, yet the racial composition and social structure generally remains atypical.

In particular those towns directed at normal market housing or planned with the idea of financial gain often support very wealthy communities e.g. old age and recreational communities.

In terms of social and community services provided the American new towns again have a mixed record. Campbell (1976) reports general satisfaction and widespread happiness with the social content of the new towns in the case of the newer settlements. But not all have been successful in this respect especially where the idea was not followed through and the resultant political area not carefully developed. Pruitt in Missouri, for example, though it was highly acclaimed at its inception in 1954, had no schools, health centre, churches, cultural or retail facilities, and no services (Housing and Urban Education, 1971). Inevitably it was a 'colossal failure', demolished before its twentieth anniversary (Campbell, 1976). In evaluating cases such as the above, a distinction should be made between the overt or expressed aim to provide " ... a suitable environment for every American family ..." (Campbell, 1976, p. 9) and a possible covert idea to produce a large financial return with minimum outlay. On the whole the early American new towns relied on the British pattern of more or less closed neighbourhood communities with as large a degree of self-containment as possible at the local level. However, new ideas have resulted in 'activity centres' with overlapping catchment areas. The assumption is that wider choice can be made available to residents by enabling them to reach several centres with different facilities, rather than by expecting them to find all they need in terms of education, shopping or social facilities in their own community centre.

The commercial and industrial sectors of the American new towns also reflect the different ideas dominant at the planning stage of the settlements

development. The towns designed as free-standing entities display a greater range and diversity in these sectors than their counterparts which were designed as satellites. Land allocated to industry varies between approximately 2,4 ha per 1 000 population in Harbison and 18,2 ha per 1 000 population in Lysander (Turner, 1974). That the ideas did not include industrial self sufficiency is evident when it is noted that in almost 70% of the examples cited by Turner (1974), open space exceed that allocated to industry. Areas for recreation vary between 4 and 13,35 ha per 1 000 population. The large amounts of open space are often the result of special conditions and the decisions related to new ideas, for example, the current concern with preservation of the environment led Shenandoah developers to leave the valleys free for recreational purposes, and preserve large areas of woodland (half of the 2 922 ha site is forested), as permanent open space.

A great many of the world's new towns outside the United States of America are also based on economic ideals. Mining towns are an obvious case in point, but are not the only ones. Friedmann, (1968) suggests that cities should be deliberately built in order to promote development: Tema in Ghana was built as part of the Volta project to serve the developing economy of the region as an export and import harbour, but also to house industry, both light and heavy (Kerchherr, 1968): in Canada new towns have arisen to serve economic needs in the fields of mining (Uranium City) lumbering (Chibougamau) and industry (Ajax, Deep River). Tuy Medio in Venezuela was conceived as a satellite city in the Caracas sub-region to house overflow industry (Turner and Smulian, 1971): in the USSR 66% of the new towns listed by Osborn and Whittick (1963) have either mining or industry as their base: and Australian new towns such as Kwinana,

Elizabeth and Leeton are also economically based.

It would appear that ideas about the role new towns are intended to fulfil do lead to a chain of related decisions and movements and the development of new fields as well as the emergence of a new political area in the built form of the town itself. New towns based on social, political and economic ideas have gained acceptance the world over and though the foregoing may give the impression that individual countries have all based their new towns policy on one or other of these idea streams, this is not necessarily the case, as is illustrated by the example of South Africa.

#### The South African Experience

Despite different ideas in a unique situation, the chain of development is evident in South Africa where varying ideas have been applied to the establishment of towns for blacks and whites. It is clear from the writings of those involved in the planning of Vanderbijlpark (Anderson, 1959), Sasolburg (Kirchhofer, 1959) and Virginia (Collings, 1959) that no formal new towns policy at all exists in South Africa. There is the vague idea of designing towns that are " ... more convenient, more beautiful and safer places to live in ..." (Kirchhofer, 1959, p. 180) and to this end and with due consideration for the ideas behind the development, the planner must apply the sum total of conclusions and knowledge drawn from past planning experience (Kirchhofer, 1959). Brief mention is made in passing of the need to create " ... a whole urban organism balanced in itself ..." (Kirchhofer, 1959, p. 180) and the American notion of using the new town as a testing ground for the validity of planning theory is stated by the same writer as the first responsibility of the planner. However, the resultant political area appears to suggest that as in the United States, ideas related to economic factors are the



driving force. This is reflected in the fact that there are four free-standing white towns that have been built since World War II, and their *raison d'etre* is purely economic: Vanderbijlpark serves as the residential and social base for a large iron and steel works, Sasolburg houses workers employed in a synthetic petroleum plant and oil refinery and Welkom and Virginia are both mining towns. Decisions regarding character and location were taken with the ideas concerning accessibility to markets and raw materials, availability of water and electricity, transport, waste disposal and growth in mind (Anderson, 1959). With regard to black townships, on the other hand, the ideas are less specific and more generally applicable. Government policy requires segregated residential areas for blacks, and prescriptions for urban form are laid down in a master plan which is used as a basis for the planning of individual townships. These townships are built primarily to house the black labourers of the metropolitan areas of South Africa and are similar to the United States satellites in that they attempt to provide for social and educational needs within the precincts of the town, but in other respects are dependent on the existing economic base of the metropolitan area in which they are situated, e.g. Mdantsane at East London, Soweto near Johannesburg, Kwa Mashu and Umlazi outside Durban and Mitchell's Plain for Coloureds in Greater Cape Town.

In terms of the white population of South Africa, movements generated by new towns and related decisions are limited. Only 113 440 whites lived in the four new towns at the time of the 1970 Census (Republic of South Africa Population Census Statistics, 1970) and none of these new towns has yet achieved city status. In 1969 Cook ranked none of them higher than an order four place (Vanderbijlpark) while Sasolburg (order five) and Virginia (unranked) are little more than service centres for their local residents.



Welkom, not included in the above study was ranked by Davies and Cook (1968) as a major town, though its zone of influence is distinctly limited and its central place characteristics relatively poorly developed.

In terms of economic flows, though, these towns are important. Iscor at Vanderbijlpark is the largest iron and steel works in the country, and it has attracted a number of heavy industries to the town while economic movement generated by the rich gold mines of the Orange Free State and the Sasol plant needs no further emphasis. The situation with regard to the black townships however, is very different as far as both the nature and volume of movement is concerned. Soweto has a population of 602 043 inhabitants; (Republic of South Africa, Population Census, 1970) and Mdantsane, Umlazi and Kwa Mashu all presently house over 100 000 persons (official estimates). Daily movements of people generated by these townships are large owing to the extremely limited number of job opportunities available therein. The result is that with few exceptions the inhabitants do not live and work in the same town. Economically, commercially and industrially the flow generated by the black townships has engendered certain additional burdens for the metropolitan areas in which they are situated. Job opportunities have to be provided, and where they cannot be, social services (and all too often the police and justice departments) have the added task of coping with unemployed. Employers of black labour face extra direct taxation to subsidize transport, and both consumer and commuter services have had to be extended to cater for the escalating demand. Congestion has increased and shopping patterns have changed. There are, however, certain advantages, mainly the additional buying power of the increased population and the availability of labour which has helped attract industry to the metropolitan areas concerned.

Economically the interaction between white cities and their black satellites or suburbs is important, but the ramifications of the black/white contact situation go beyond this sphere. The significance of these interracial relationships is such that the position of the urban blacks has become one of the major issues in the party political scene in South Africa.

#### Aims and Hypotheses

Whether the construction of new towns is socially, economically or politically motivated, they display certain common features in their recent origin and the fact that they were conceived as total entities to a complete pattern of living for a full cross-section of people. On the other hand, new towns all differ in detail for the idea of a balanced town to effect the rehousing of the overcrowded inhabitants of a slum will result in an urban scene different from that conceived by planners intent on producing a symbol of unity, a representation of the state's national aspirations or an exemplification of the nation's concept of self. The search for a 'good' place to live must culminate in a settlement different from one that sets out to promote national security. While each new town is unique, any town that embodies the underlying principles discussed above, even if not wholly or explicitly, should be evaluated in the light of the overall concept and it would seem possible that differences in final form may in part be related to changes in the chain of development proposed by Jones.

In the light of the foregoing it is hypothesized that:

- (a) the formulation of the idea of Mdantsane has led directly through the stages outlined by Jones in his Unified Field Theory to the present political area,
- (b) that Mdantsane, though a new town in concept and age, reveals

differences in origin, form, structure and function from theoretical models and new towns elsewhere,

- (c) that the establishment of a politically independent Ciskei will lead to the generation of new movements and fields in respect of the township, and that these will be reflected in the political area in response to the new idea.

In order to test these hypotheses there are certain major objectives of this particular study and these include tracing the political ideas, political development and political decision-making in respect of Mdantsane in an attempt to ascertain to what extent it is reflected in the political area. By establishing the characteristics of Mdantsane (the political area) and comparing it with other new towns it is hoped to highlight differences that may be attributed to differences in the chain of development. Evidence will be sought from the inhabitants of Mdantsane and officials concerned with policy formulation and implementation concerning ideas and resultant decisions and movements related to the Ciskei as an independent homeland in order to postulate about future changes in the chain of development and likely effects on the existing political area.

To achieve the above the methods and theories of political and urban geography will be used in conjunction with one another, in the hope of providing a clearer picture of the political area than can be produced by the methods of either branch of geography in isolation.

## CHAPTER 3

## ANALYSIS OF THE POLITICAL AREA

Whereas political geographers were long faced with the problem of a dearth of theoretical concepts in respect of their subject as a whole, there is an abundance of studies of individual political areas. State boundaries, political power, national growth and capital cities have all proved fruitful grounds for study. But it is at the local government level of the hierarchy of political areas that analysis of political areas has really flourished. Such study has however, not occurred within the realm of political geography, and scant attention has been paid to the political role of the city. Instead urban areas have generally been considered as disparate entities, focusses of city-regions or central hubs serving tributary areas in a socio-economic rather than political sense. The analysis of the city is thus commonly regarded as an urban geographical rather than political geographical problem and work related thereto is recognized as a distinct branch of geography. The approaches in respect of the analysis and description of urban areas, cities, towns, built-up areas (to mention some of the terms applied to the local level areas of the hierarchy of political areas) are multitudinous, and it is thus necessary, before proceeding to an analysis and description of the characteristics of Mdantsane in particular, to take a brief look at some of these approaches and to isolate those most relevant to the study in hand.

The built-up area of any urban settlement, whether planned or unplanned, is a unit, a totality made up of a complex of inter-related parts.

Because of the intricacy of the system, the unity is commonly broken for purposes of examination and the whole divided into a number of different aspects for separate consideration. The main constituents isolated in such studies are site and situation, form, structure and functional character. Having broken the urban area into these constituent parts, the task of the geographer is twofold, involving as it does both description and explanation. As each political area, including an urban centre, is, in the light of Jones' (1954) theory, the unique manifestation of the ideas and theories, historical circumstances and economic climate, and the political framework within which it was born and grew, the first task is to describe patterns that have arisen (Prescott, 1972). In addition to description it is important for the researcher to analyse what has been described, and to account for the patterns found. Whereas many studies describe or analyse these parts per se, the problem in respect of this particular study is to recognize the extent to which these factors reflect the ideas and decisions on which the settlement is founded. The task is thus briefly to describe and analyse the reciprocal relations between politics and geography, ideas and areas, in the development of Mdantsane.

### Built Form

#### Site and situation

In describing and analyzing the role of site and situation in the development of a town, cognizance must be taken of the fact that physical setting, i.e. the nature of the terrain as well as location in relation to raw materials, markets, other settlements, boundaries, the sea or even the latitudinal position can influence to a marked degree the characteristics of the urban settlement which eventually arises. Buildings in the tropical



areas will generally differ from those in the temperate zones; street patterns on steeply-sloping, heavily dissected terrain will usually differ from those on flat prairieland; multi-storey constructions are simpler to erect on stable bedrock than sand or clay; drainage will require different solutions in low-lying swamps and undulating karst regions. Landforms, soils, bedrock conditions and climate, for example, are thus often keys to the understanding of a particular settlement: an individual city cannot but display pronounced adjustment to its own special site conditions, and if the site demands a settlement which is not in keeping with the ideas on that settlement, a decision needs to be taken to build on a site which does allow fulfilment of the idea.

#### Site

Unfortunately, there is little room for the development of meaningful generalizations in respect of the influence of site on urban development. Early urban geographers wrote of hilltop cities or valley settlements as though the characteristics of a settlement were derived solely from its physical location. While it may be true that certain physical features have for one reason or another been favoured for the siting of towns, the precise physical details of the site of one hilltop or valley are often so unlike those of another site of the same type that comparisons are simply not valid. The result is that few modern urban geographers have attempted a classification of sites. A notable exception is Griffith Taylor who, in 1953, attempted to distinguish the development of a wide variety of settlements on the basis of their respective sites. Though he succeeded in systematizing urban sites, he had to admit that 'no very clear rules' resulted from his study. This is hardly surprising, as the function of a settlement, what Carter (1972) terms 'its main attribute' is never

based solely on site.

### Situation

Similarly, situation should be regarded as an influencing rather than a controlling factor in urban development. For example, one seaside town may develop as a port of note, another as a recreational centre or holiday resort: one highveld town as a service centre for the farming community, another as an important industrial settlement. It is nevertheless true that the selection of a particular situation may reflect the political idea held at the time the town is mooted. This is particularly true in respect of planned settlements. Clearly if the idea is to house the employees of a mine, as in the case of Virginia, situation within easy reach of the mine will be chosen. Vanderbijlpark was located with ideas concerning accessibility to markets, labour and raw materials, ability to get rid of waste matter and availability of water and power in mind. Clearly the political ideas and policies of the various governing bodies in South Africa also play a role in the selection of black location sites.<sup>1)</sup> For ideological reasons they are generally separated from white settlements, but for practical reasons they commonly lie within the urban field of a white town or city. The effect of this situation is usually to produce black suburbs, or at best satellites, rather than black towns or cities.

Clearly then, site and situation, though particularistic, play an important role in the development of any urban settlement. Nevertheless, they are not the only factors, or necessarily even the most important factors, in understanding the complexities that go to make up any city.

### Form

Like physical setting, form consists of two related features of the urban

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<sup>1)</sup> 'location' is used throughout to indicate black residential area.

landscape, viz.

- a) the layout, town plan or street pattern of the settlement i.e. the two-dimensional aspect and
- b) the townscape, which includes the size, shape, height and nature of the buildings that occupy the interstitial space; i.e. the vertical component with its attendant architectural focus.

It is these aspects of the urban scene that are likely to illustrate most clearly the influence of dominant ideas at different times in the growth of the urban area.

#### Studies of street patterns

The street plan of any settlement is the reflection of a wide variety of features; geological, geomorphological, economic, social and political. Town plans are thus largely individualistic, the products of time, place and culture, and, whereas many useful empirical descriptions of urban form have been undertaken, they are usually particularistic. Dickinson, (1951) describes in great detail West European urban plans; Trewartha, (1934) has made a study of Japanese plans; Spencer, (1939) has studied the plan of Chungking, and Spate and Ahmat, (1950) have done likewise in five Indian cities. The academic excellence of their work notwithstanding, none of them has achieved more than a detailed particularistic study, and generalizations applicable to other research have not been evolved to any marked extent. The analysis of these unique patterns has, however, generated a terminology that has become a part of urban geographic vocabulary. Common terms include 'grid pattern' (originally meant to indicate that every street crosses another at right angles and at the same interval); irregular layout; and radial concentric patterns, (where a number of roads radiate outwards from a centre and are successively intersected by a series of concentric

circular roads). No cities display plans which meet precisely and entirely any of these prescriptions, and inevitably debasement of the terminology has occurred: a grid pattern has come to mean any rectangular arrangement of streets, whereas all patterns with a strong nuclear or circular component are now generally referred to as radial concentric (Carter, 1972).

On the basis of this descriptive shorthand, Dickinson (1930) has formulated basic systems of urban ground plan, while Tricart (1954) has further subdivided these concepts: e.g. rectangular patterns are broken down into linear, ribbed, parallel and grid patterns: radial concentric plans into star-shaped and circular, etc. Though such terminology is applicable to any urban settlement, large or small, planned or unplanned, it cannot be expected to be anything more than a descriptive tag, and the terminology itself certainly does not represent analysis. An approach which may be conceded to go slightly beyond description, however, is that which identifies major growth phases in the historical development of settlements. Urban growth, it is suggested, is characterized by periods of virtual stagnation followed by periods of rapid growth and it is the latter periods which provide successive plan elements which can be isolated and interpreted by reference to the general history of the town. Lavedan (in four volumes 1926 to 1952), Hiorns (1956), Conzen (1960) and Reps (1965) have produced what may be regarded as 'standard works' on this approach. Generally, however, this method is not applicable to planned developments which are usually laid out as a single entity. On the other hand, should the concept of a planned town change, and new developments be added or older ones altered, an analysis on such historical lines could prove fruitful.

Commonly then, the study of new planned settlements demands a different approach to those outlined above. The present generation of new towns have not been through any marked range of historical stages, and their physical growth has thus not been subject to the variety of economic and social upheaval to the same degree as older towns. Each new town, as a planned entity, had an envisaged ultimate size and layout as an essential part of the original idea, and also a preconceived purpose or role to fulfil. The recognition of such an idea behind the political area raises the need to " ... consider plan contrasts from some more relevant standpoint than the traditional historical view" (Carter, 1972, p. 143). The foundation of such an approach may be found in Stanislawski's (1943), attempt to introduce generalizations into the study of urban plan. Though he limited his work to the grid pattern town in a colonial or quasi-colonial situation, he was able to formulate the basic concept that, independent of particular historical circumstances, the operation of centralized political control would cause the grid pattern to emerge. Support for and extension of this approach was forthcoming in 1960 when Lewis Mumford considered urban plans as the product of economic, cultural and political forces. Mumford's plan analysis was thereafter confined to 'the usual historical progression', but the ideas of these two writers have been developed and extended by Carter (1972) to cover all urban settlements, regardless of their historical development. Carter suggests that uniformity of town plan, and not simply a grid pattern, is a reflection of the degree of centralized political control: i.e. political ideas and decision making are reflected directly in urban plan. Orderly decision making results in coherency of town plan, whereas when decision making is fragmented, plans are incoherent. As a supportive example Carter cites the merchants of London who built their houses where they wished. From



this fragmentation of decision making, an incoherent plan of streets and alleyways resulted (1972, p. 143). Modern municipal developments, company housing estates and of course new towns on the other hand, were planned by a single controlling authority and a coherent plan resulted.

A similar concentration of power, though in a somewhat different context, may have led to the regular pattern of the street plan of Washington, appropriately the focus of political power in the United States. Carter's contention is thus that studies of the way in which controlling power is distributed will give considerable insight into the degree of formality of town layout and that contrasts in the uniformity of plans are a reflection of the degree of the concentration of power. Unfortunately Carter gives no indication as to how coherency may be measured. Likewise, Stanislawski, though referring to a grid pattern town and basing conclusions on the degree of uniformity discernible in the town plan, does not define these terms accurately. Whereas uniformity or coherency may be easy to distinguish visually, a simple quantification of the concept is desirable if valid comparisons are to be made between different plans or different parts of the same plan. On the assumption that the true grid plan is the prime example of uniformity, the concept may be easily quantified by calculating a 'uniformity index' as follows -

$$UI = \frac{XI}{TI}$$

where XI represents the number of right angled cross-intersections and TI the total number of intersections on a given plan or part thereof. An unbounded grid, or portion of a grid with boundaries between, rather than on, the streets, would give the maximum UI of one. Any decrease in this value is indicative of the introduction of non-uniform components, and the lower the value of the UI, the less uniform the plan.

Lack of uniformity, however, does not necessarily presuppose lack of coherency. In modern town planning cross-intersections are deliberately avoided in favour of three-legged intersections (cf. Virginia, Fig. 5d) in order to ease the effect of turning traffic and to reduce congestion (Kirchhofer, 1959). Whereas a plan with a predominance of three-legged intersections will not display any great degree of uniformity, it could nonetheless remain coherent. Town planners generally, though not exclusively, favour right-angled intersections on town streets, whether the intersections be three-legged or cross intersections. On the other hand the study of the street pattern of a totally unplanned urban settlement indicates that haphazard growth does not commonly produce right-angled intersections (cf. Chunking and the older parts of Kimberley, prime examples of haphazard, unplanned and uncontrolled growth: Fig. 5a and b). A right-angled intersection may therefore be regarded as indicative of coherency, and is used as the basis for the quantification thereof.

Thus -

$$CI = \frac{RI}{TI}$$

where CI is the Coherency Index, RI the number of right-angled intersections and TI the total number of intersections. Again the theoretical maximum, indicative of the strongest centralized political control in terms of Carter's hypothesis, is one. A grid would again produce a high CI indicating that the plan is not only uniform but also coherent. A planned non-grid, though having a low UI, would produce a relatively much higher CI. (Table 1).

Although the indices are easily quantifiable and can be directly compared, they have not been standardized nor is it possible to test the significance of differences between the values obtained for different urban areas. The range of values is also limited, for indices approaching either

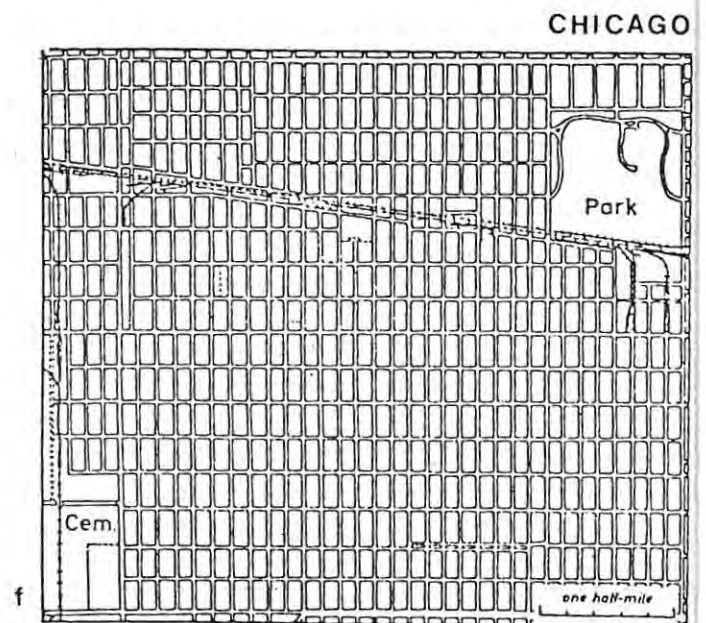
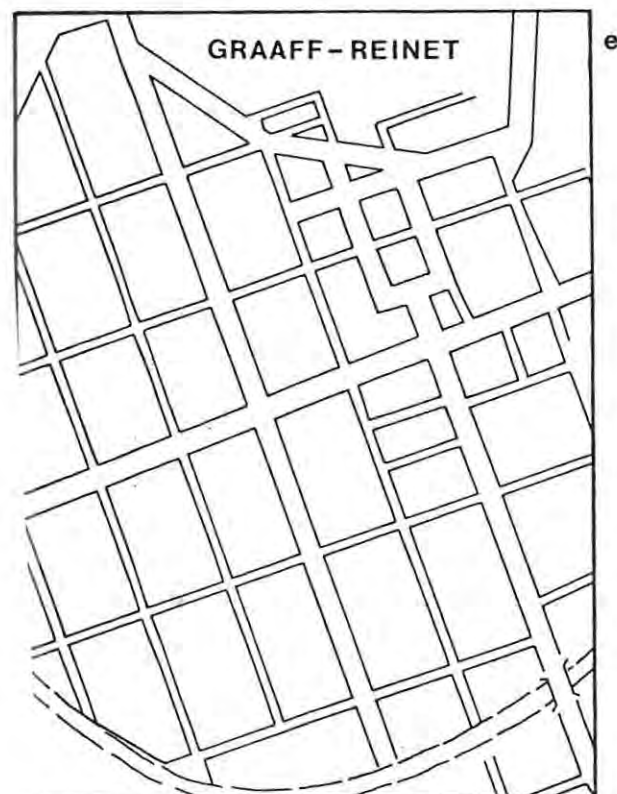
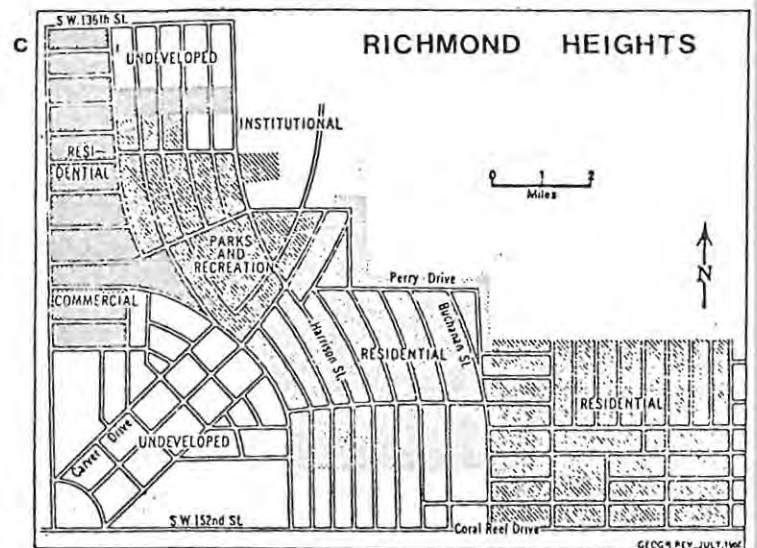
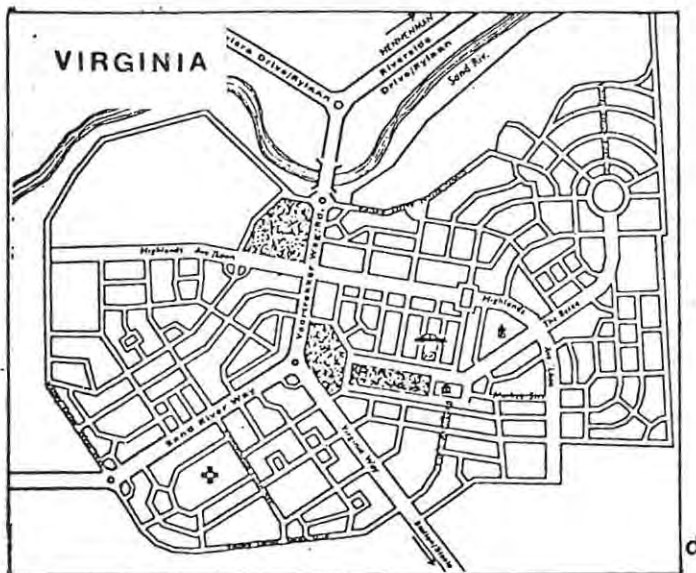
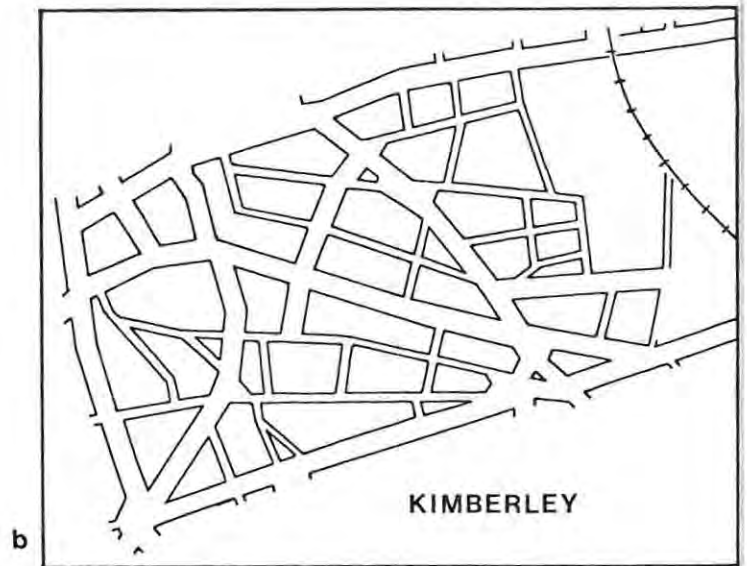
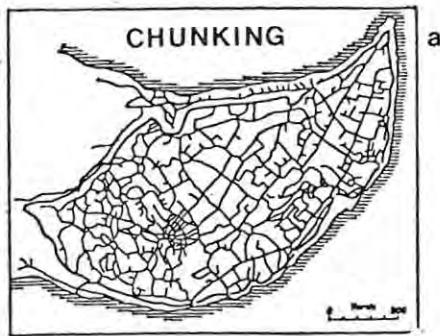


Figure 5: Town Plans Reflecting  
Different UI and CI Values.

TABLE 1: UNIFORMITY AND COHERENCY INDEXES OF SELECTED SETTLEMENTS

SETTLEMENT	UNIFORMITY INDEX	COHERENCY INDEX
<u>Unplanned</u>		
Chunking	0,02	0,14
Kimberley	0,06	0,25
<u>New towns</u>		
Richmond Heights	0,15	0,76
Virginia	0,17	0,78
<u>Grid pattern towns</u>		
Graaff-Reinet	0,52	0,90
Chicago	0,74	0,95

0 or 1 would be extremely rare. Topography, boundary lines, railways, the joining of newer and older areas and even expediency and aesthetic requirements are all likely to introduce non right-angles in planned layouts: similarly, a complete lack of right-angled intersections in unplanned developments is extremely unlikely. Planned features such as traffic circles may introduce difficulties of definition in terms of right-angled intersections, and of course planners can introduce non right-angles as elements of the plan without necessarily introducing incoherency. However, the method is simple, easily applicable, and the data readily available and extremely easy to manipulate and, most important, it allows for a straightforward comparison of town plans, concepts and components which are not directly comparable by any other method.



### Townscape studies

Town plan, however, does not present the total reality of urban forms: it is indicative only of the two-dimensional aspect where in reality all towns are three-dimensional. Most commonly the third dimension in urban studies is illustrated by the description of buildings and the construction of profiles. These profiles may take account of buildings only and thus represent the town as though it has been built on a flat surface, or they may take account of the topography as well. However, in this particular study it is felt that description alone will adequately cover this aspect of urban form owing to the almost total absence of buildings of more than one storey in Mdantsane. Indeed it is the descriptive elements which Smout (1971) suggests should claim a major share of the attention of urban geographers, not just as a casual adjunct to urban studies, but as an integral part of them. Such description, with a close study of the changing pattern of spatial variations in visual features through time allows what he calls a 'four dimensional' comprehension of the urban scene. It allows for the unravelling of the history of the settlement and provides a means by which processes of change may be assessed (e.g. nonconforming buildings often indicate changes in land use pattern). In addition, townscape features may be correlated with socio-economic parameters, and the impact of various cultural and ethnic groups on the urban scene comes to light. Though cadastral elements often have a marked influence on building size, shape, height and density, all structures clearly reflect the ideas and needs of the community and the design concepts and economic policies of architects, customers and planners. Decisions are based on all these factors and the eventual form of the urban landscape thus reflects culture and economic status, technological development and availability of materials, proposed usage and the nature of the area. Clearly in the case of Mdantsane, built



in a relatively very short space of time for one ethnic group displaying marked economic homogeneity, certain of these elements will be largely absent or irrelevant. On the other hand Martin and March (1972) focus on the interrelations between street pattern, plot size, building form and the resultant overall pattern of living. Their technique involves the examination of the efficiency of plan, land use and site utilization, as well as the relationship between buildings and roads. The cornerstone of their work is the 'Fresnel diagram' based on the geometrical principle that the area of a circle is increased in proportion to the square of the distance from the centre to the circumference. The result is an interesting challenge to the basic tenets of design and planning.

### Structure

Closely related to urban form is the concept of urban structure. This term refers to the overall arrangement of land use within an urban settlement. The city is characterized by the existence of various kinds of specialized activities, each taking place in a more or less separate and distinctive area, for the city is the aggregate of a number of smaller, more or less homogeneous units, each having distinctive characteristics and each playing a special role in the life of the city as a whole. Usually there is found to exist some sort of repetition in the geographical arrangement of these different units, and as a result, a number of models have been devised which attempt to generalize about the arrangement of land use regions within the city. Though these theoretical models, for example the Concentric, Sector and Multiple Nuclei Theories are not without meaning and value, their applicability in the case of planned towns is limited. All presuppose one or more focal points, laissez faire development within a free enterprise society and amorphous outward growth, whereas

new town structure on the other hand reflects rather the aim of the town and the role it was planned to fulfil. As a result new town structure may differ quite markedly from that of an unplanned settlement, and the main focus of attention lies in the manner in which, and extent to which, the theoretical norms alluded to earlier are attained and in similarities to, or contrasts with, examples of other new towns.

#### Functional character

The function of an urban settlement is directly related to the economic, social, political and administrative activities it performs. The concept involves two interrelated aspects, viz.

- a) the inner diversity of function as represented by the variety of occupations of the inhabitants or by the variety and types of goods and services available within the urban centre or emanating therefrom; and
- b) the role of the city as focus of its region. The latter presupposes a number of tasks performed within the city for surrounding contiguous or non-contiguous areas.

In both cases it involves movement within the built-up area, but also fields of influence which are less tangible and more difficult to map and measure. In the case of unplanned cities the tasks performed both within the city and for the surrounding areas will have grown up with the passage of time in response to the needs of the community which the city serves. However, in the case of the planned city the urban settlement will have been planned from the outset to fulfil a particular role, perform a certain set of tasks and serve a special function. The function that such a political area is meant to fulfil should thus reflect directly the concept underlying its foundation, the idea behind its origin and the degree to which the ideas

and decisions find expression in the real world situation, i.e. how they result in movement and fields. From the outset it should be clear that every city worthy of the name is multifunctional (Murphy, 1966) and the vast majority of urban settlements will thus have at least some workers in a wide range of occupations. This factor was often overlooked in early functional studies, and they consisted largely of the subjective application of descriptive labels to settlements which were arbitrarily classified as manufacturing cities, mining centres, university towns, etc. Studies of this type date back to as early as 1841, but the first major work was that of Aourousseau in 1921. Though there were inconsistencies in his work, his study marked an important stage in the development of functional studies by bringing together many diverse ideas into one comprehensive scheme which was at once the climax of a long period of purely descriptive work and the springboard for new methods (Carter, 1972). Harris (1942) produced a similar type of single-label functional classification of cities, but it was quantitatively based. Using the 1930 census figures in the United States of America, he established arbitrary limits for his various functional types by analyzing the statistical data from well-recognized cities of each class. His work was followed by that of Pownall (1953) who based a classification of New Zealand towns on percentage deviation in various occupations from the average for the country as a whole, and Nelson (1955) who grouped the occupations of the urban population of the United States into nine major categories and calculated the average percentage in each category, as well as the standard deviation. He then classified as specialized in a particular function all towns containing the average percentage of people in that occupational group, plus one standard deviation.

Alexanderson (1956) based his multifunctional classification of American cities on the relationship between those gainfully employed in particular occupations in each city and the figure for the entire country.

While these types of study have made an important contribution to urban analysis, they all presuppose that by and large people live and work in the same town, and their application to settlements where this is not the case could lead to a major misrepresentation. For example, to classify a residential settlement with no industries within its boundaries, but built to house the workers of a certain factory, as an industrial settlement on the grounds that 100% of the workers are employed in industry, is clearly absurd. Though this may be an extreme case, it serves to highlight the inappropriateness of traditional occupation-based functional studies in respect of atypical developments. In an attempt to overcome this difficulty, Victor Jones (1963) developed a classification of greater relevance to this study, which takes account of employment relative to residence. Jones calculated an employment-residence ratio by dividing the total number employed in a settlement by the total resident labour force and multiplying the quotient by 100. Because of the difficulty experienced in obtaining data, Jones did not use total numbers employed, but selected certain activities as representative of the labour force, viz. manufacturing, retail and wholesale trade and selected services. Ratios in excess of 115 were taken to be indicative of employing centres, 86 - 115 represent balanced settlements and those with a ratio of 85 or less he classified as dormitories.

Even more important as far as the present study is concerned is the work of Berry and Garrison (1958). They loosed themselves entirely from the occupations of the inhabitants and considered instead the functions per-

formed by the urban settlements themselves. This work, an extension of Christaller's Central Place Theory, established the centrality of an urban place on the basis of attribute and variate central functions. The method allows for comparative studies and is independent of arbitrary administrative classification which may be found in census data. It has been applied to the South African scene by Cook (1969). The data is easily obtainable, the results accurate and the method is applicable to any town, large or small, young or old, planned or unplanned.

The work of Berry and Garrison isolates the functions of a settlement without distinguishing who these functions serve. Though many of the variety of urban functions found within cities may primarily serve the needs of the inhabitants of the centre concerned, this is not necessarily always or entirely the case. "Cities do not grow up of themselves. Countrysides set them up to do tasks that must be performed in central places ..."

(Jefferson, 1931, p. 453) and urban settlements thus often have a profound effect on the lives of people who live in the surrounding areas. This influence is felt by those in a more or less extensive but contiguous area drawing on the general service or central place functions as well as those in a non-contiguous area linked to some specialized function. The overall area of dominance is known as the urban sphere of influence, the tributary area or the urban field. An analysis of the city's relationship with its field and the resultant interactional movement of people, things and ideas is important, as it brings a better understanding of the city itself (Murphy, 1966). Such study is by no means the exclusive province of geographers. Over the years sociologists in particular have shown interest in the urban field. Fawcett (1917) was a forerunner in this type of work. He undertook a delimitation of the counties of England at that time, suggesting



that they were essentially the hinterlands of major metropolitan centres and pleading for their use as regional administrative areas. In 1930 Dickinson recognized various zones around Leeds and Bradford which were linked to the two central cities by social, economic and cultural bonds.

Further attempts to delimit similar zones around other settlements were made almost immediately after the appearance of Dickinson's article: Dodge (1932) attempted to do so in respect of Howell, and his work was followed by that of Harris (1940) in respect of Salt Lake City, Green (1950) for New York and Boston, Brush and Bracey (1955) as part of a Central Place study for Wisconsin and Southern England, Vivian (1959) in respect of Grenoble and Fair (1949) whose study was based on Durban. In the urban field studies undertaken by urban geographers, a twofold division of approaches is discernible. Service areas may be delimited on the basis of single or multiple service functions which are regarded as particularly expressive of the links between the urban settlement and its surrounding area. Several workers, including Park and Newcomb (in McKenzie, 1933) take into account newspaper circulation area, wholesale and retail trade areas and industrial distribution area. Green (1955) makes use of seven such 'functional indicators', the most important of which he considers to be bus connections. Other outward flows that may be considered in delimiting service areas are mainly administrative and may include such indicators as the area of jurisdiction of a local magistrate or police station, journeys undertaken by centrally based ambulances or a fire brigade, visits by local health inspectors or areas presided over by a regional or national capital city. Again, however, where these are not subjective, they are representative of nothing other than the specific area encompassed by one function.

Another approach considers inward flows, largely, though not exclusively, of people, and it may focus on the countryside independently of the urban settlement. Bracey (1953) followed this method in mapping journeys to shop by discovering where the rural population obtained central services rather than where the urban population offered them. He calculated a centrality index by allocating points to various centres on the basis of proportion of use of each centre by rural inhabitants.

Though widely used, these methods of delimitation of service areas have certain important disadvantages. The selection of criteria is a subjective exercise. The most important indicator in one type of urban field is not necessarily the most important in another, and information readily available in one city may be unobtainable in another. Furthermore the edge of a service area is usually gradational, not definite, and the boundaries for different services may vary widely. With increasing distance from the central city, domination does not end abruptly, but tends rather to weaken gradually, until eventually the influence of some competing centre exceeds that of the city under consideration. But there is an intermediate zone in which people may make use of two or more centres, or might favour different centres for different services. Finally delimitation of an urban field on its own is of no real value unless used in some particular way.

There are many tested techniques available for the analysis of an urban area but the problem is how these techniques are to be related not only to the urban scene itself, but to the evaluation and analysis of ideas and decisions. The analysis of any planned settlement should include not only an evaluation of what exists, but also of the extent to which this built up area has

achieved the goals set for it at the outset. In this study a further aspect is introduced namely to establish not only whether the urban scene reflects the ideas of planners, but whether, if so, this has come about as a result of or through the various links in the chain outlined by Jones. Official documents and acts, statutes and bye-laws reflect political decisions at governmental level, but do not necessarily reflect the equally important individual decisions. It is also possible to rationalize information published for public consumption, so that stated aims of intent may reflect only part of the picture, or may indeed be far removed from real or original ideas. It is thus essential in attempting to piece together a valid portrayal of the course of events that recourse be made to reports, both newspaper and verbal, official and private, interviews with as many different parties as possible, books and even hearsay evidence. Clearly these sources will provide different points of view and total objectivity is not possible. This fact coupled with the difficulty associated with gaining access to personal ideas forms the most important limitation in the method. When the ideas originated in the distant past, or involve controversial decisions or policies the difficulties are increased. Should final form appear not to match stated ideas therefore, this may not be indicative of a break in the chain and invalidity of the theory; it could be that certain ideas have been deliberately suppressed or that overt aims are underlain by other ideas, possibly covert or even unconscious on the part of planners and authorities. In such a case it is the task of the researcher to discover what the real ideas were.

PART II

MDANTSANE

CHAPTER 4 THE DEVELOPMENT OF THE POLITICAL IDEA

CHAPTER 5 THE STUDY OF THE POLITICAL AREA

De Blij (1973) suggests that to be regarded as valid, a theory must do more than assist in compact description, must be more than a tool for better work; it must also provide a clue to explanation. Unless the body of theory discussed in the preceding chapters can be applied to practical examples and can aid comprehension of reality, therefore, it at best requires adjustment or adaptation, at worst it is worthless and invalid.

Part II sees the application of the relevant sections of the theory already presented to the political area Mdantsane in order both to test the validity thereof and to gain insight into and comprehension of the concrete form which is the urban settlement. It sets out to trace the development of the idea, to follow the decisions, to measure the movements, to elucidate the field and to describe the political area. In short it aims to follow the thread which, according to Jones, binds these various aspects together and in so doing to shed light on why the political area in question has assumed its particular form.

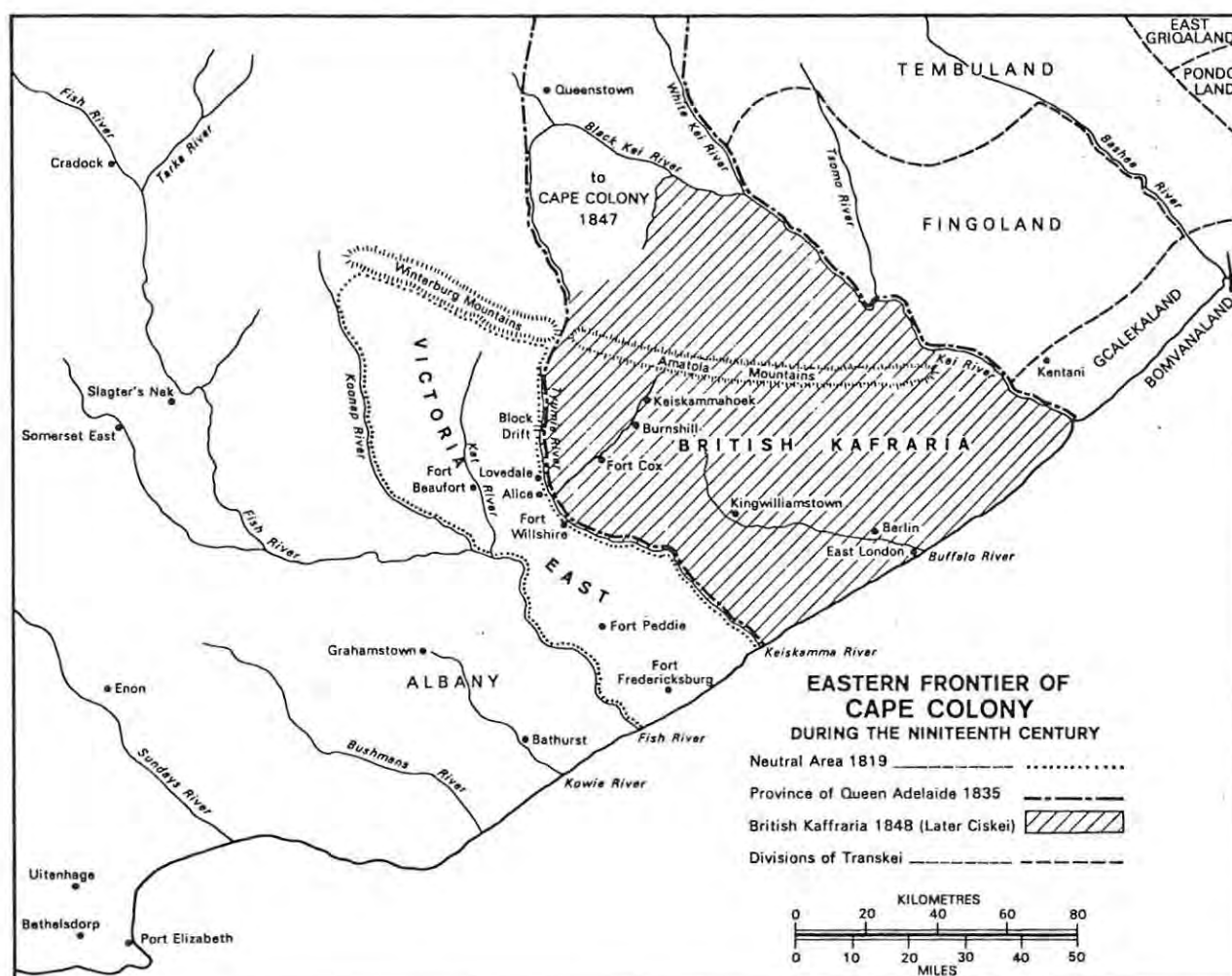
Though Mdantsane itself is a recent development, in order to understand the ideas which gave rise to its founding it is necessary to delve back to the beginning of recorded settlement at the site and to trace the ideas which gave rise to the predecessors of the township, viz. the locations of East London, and to follow the ideas which evolved from conditions in these locations. It is also necessary to touch on recent and current political ideas in the broader concept of South African politics as a whole. Chapter 4 first looks at the developments which took place from the first permanent settlement at the Buffalo River Mouth up to 1963, when the first permanent buildings arose at Mdantsane. Until that time there was still some flexibility about the new political area, but once ideas and decisions were translated into movements and buildings, it became much more difficult to alter the developing political area, and the mere fact of its permanence could be expected to condition new ideas, but also to limit them and their implementation.



## CHAPTER 4

## THE DEVELOPMENT OF THE POLITICAL IDEA

The settlement at the mouth of the Buffalo River, today known as East London, dates from November 1836 when the brig Knysna, chartered to deliver military supplies to the British forces of the Province of Queen Adelaide, (Fig. 6) was anchored off the mouth of the Buffalo River. John Rex, son of the owner, opened the pages of East London's commercial history by bartering goods with the Xhosa: and Captain John Baillie, responsible for the transporting of supplies overland to King Williams Town, immediately claimed the area for Great Britain and named the settlement Port Rex. At first it was a port in little other than name, and the abandonment of the Province of Queen Adelaide on the orders of the British Government put a stop to plans for its development. During the War of the Axe (1848) however, a more permanent port for landing troops and supplies became essential, as the colonial army was increasingly hampered by the long communications lines between Cape Town and the frontier. A survey of Waterloo Bay at the mouth of the Fish River was carried out, but the surf " ... was so dangerous as to endanger lives and ships ..." (Reader, 1961, p. 5) and largely at the instigation of John Baillie, a survey of the Buffalo River mouth was ordered (Barker, 1966). A 'cautiously favourable' report on the latter was presented in May 1847, and later the same year a military post, manned by a garrison of three hundred men, was established at Fort Glamorgan on the west bank of the river (Fig. 7). On 14 January 1848 Governor Harry Smith annexed the port and surrounding area to the Cape Colony.



(Sellman and Fowler, 1970)

Figure 6: The Eastern Frontier Region During the Nineteenth Century

From 1854 on, educated blacks in the Colony enjoyed nominal equality with whites, extending even to the franchise; but despite the new opportunities theoretically available to blacks as a result, there was no immediate movement of any notable magnitude to the towns. For several years the growth of East London was slow, but 1857 saw the arrival of the first of a group of about five thousand white settlers (largely Germans) as well as the national suicide of the amaXhosa, two events which were to have a profound effect on the settlement patterns of the frontier zone. Reduced by death or dispersion

from nearly 105 000 resentful and warlike tribesmen to 37 000 pitiful refugees (Reader, 1961), the Xhosa were forced to sell their labour within the framework of an exchange economy, and the blacks became " ... a reservoir of labour (rather) than a menace to the colony" (Reader, 1961, p. 7). Thus began in earnest the movement of the blacks to the urban settlements of the Eastern Cape and especially to East London.

#### The rise of the locations

The reaction of the white inhabitants of the towns, with memories of the frontier wars uppermost in their minds, and an idea of the blacks as " ... hostile, cruel, murderous and barbaric ... " was to exclude from the town all but those who were necessary for the labour force, and to deny even these the problematical benefits of civilization" (Reader, 1961, p. 10). The black newcomers were thus settled, in the case of East London, in the three areas called 'locations' surrounding the white settlement. These were situated along the west bank of the river upstream from the original fort (later to become known as the West Bank Location); near the sea on the east bank (the Seaside Location); and in the Wesleyan Location near the present-day Braelyn, to the north of the city as it existed at that time (Fig. 7).

Originally there was apparently no legal base for the exclusion of blacks from the settlement itself, but in January 1878 the first municipal regulation aimed at the socio-political control of the black population was promulgated. This decision prohibited all blacks except servants who had valid passes from their employers



from being within the municipal area after sunset, and was apparently introduced in an attempt to ensure social and residential segregation, to control and limit the influx of blacks to the town, to reduce the danger of marauding groups of urban misfits and to minimize risks to health resulting from unhygienic living conditions and uncontrolled squatting. Overcrowding and the lack of services within the locations soon began to exact their toll, and in January 1879 the Seaside Location came under fire from the District Surgeon who attacked it on health grounds. His report was the forerunner of 'many similar reports' by medical officers of health in the years to follow. The prevalent view was that "... to move a location was at least temporarily to clean it up" (Reader, 1961, p. 12) and in December 1879 it was decided to move the seaside location to a site near the Wesleyan Location. In 1889 a further decision was taken to merge the two locations on the east bank into one large location, not quite so 'unpleasantly close' to the then high-status residences of North End. The inhabitants of the locations protested against their removal and a petition was presented to the Municipal Council in August 1889, but "... secure in the dictatorial tradition of settlement after the Kaffir wars ... (the council was) able to move the Bantu population about much as they pleased in the interests of the white citizens whom they represented" (Reader, 1961, p. 11) and by November 1889 a total of one hundred and forty seven dwellings (all round huts), had been completed at the new site (Fig. 7). It is this site, with extensions, that has been occupied by the East Bank Location ever since.

In 1895 Grey's Glen Grey Act entrusted the blacks of the Transkeian territories with a large measure of responsibility for their own affairs, but at the same time deprived them of their franchise in the Cape Parliament. In the same year the East London Municipality was given extensive powers to



establish locations and to compel blacks and Indians to live in or move out of them, to control trading, apply curfews and even regulate and set apart portions of the rivers and the sea where blacks and Asiatics could not bathe (East London Municipality Amendment Act, No. 11, 1895). This act seems to have had equally little influence on the flow of blacks to the towns, and building in East London's locations was unable to keep pace with population growth (Table 2).

TABLE 2: POPULATION GROWTH IN EAST LONDON

YEAR	WHITE	BLACK	TOTAL ALL RACES
1857	124 (+ 300 soldiers)	?	?
1865	1 275	1 765	3 040
1875	2 134	?	?
1891	4 760	2 164	6 924
1904	14 009	10 841	25 220
1911	12 522	7 926	22 367
1921	16 944	12 187	31 726
1936	21 747	24 388	50 525
1946	38 704	32 656	77 634
1951	43 411	39 850	90 729
1960	47 830	56 120	113 993
1970	53 200	51 035	119 727

By 1898 it was reported that the population of the East Bank Location was overflowing into the surrounding bush. The situation was aggravated by black refugees coming to the town after the outbreak of the Anglo-Boer war in 1899, and at about this time, with corrugated iron becoming more readily available, dwellings began to change from traditional, round, wattle and daub huts to easily-erected, rectangular wood and iron shanties. Not only did these houses lend a certain amount of status to their owners

but they also lent themselves to extension. The result was that additions were made to the original dwellings until buildings occupied the greater part of the plot, with little allowance made for light and fresh air (Dodd, 1937). Though extensions of this nature eased the housing shortage, the dwellings were in many cases draughty, leaky and highly sensitive to temperature changes, while the resultant overcrowding provided an ideal breeding ground for disease (Watts and Agar-Hamilton, 1970). By 1900 the over five thousand inhabitants were accommodated in the following buildings: two hundred and seventy round huts, one hundred and ninety square buildings and two municipal lodging houses (Reader, 1961). This average of about eleven persons per building tells only part of the story, however, as a fire which destroyed three houses in the East Bank Location reportedly displaced no less than one hundred and twenty eight people (Reader, 1961). The 'woefully inadequate' conditions notwithstanding, little was done to improve living conditions in the locations (Watts and Agar-Hamilton, 1970). The white attitude current at that time was to consider the locations as " ... unavoidable evils, though useful reservoirs for cheap labour" (Dodd, 1937, p. 250) and their inhabitants were regarded as temporary sojourners in the town simply to provide for the needs of the whites. The authorities were reluctant to commit funds to the improvement of areas sheltering only 'temporary and migrant fly-by-nights' (Reader, 1961) despite the fact that revenue from the locations was exceeded only by that from rates and the market. Indeed, this appears to have been a common phenomenon throughout South Africa for the Tuberculosis Commission of 1914 asserted that " ... in many instances ... the local authority has been making a considerable profit out of the running of its locations ..." and pointed out that the blacks derived very little, if any, advantage from the income they generated

(Report of the Tuberculosis Commission 1914, p. 237). This certainly appears to have been the case in East London, for in 1916 the nine thousand five hundred 'recognized inhabitants' were still served by only eleven water standpipes and there was no streetlighting (Watts and Agar-Hamilton, 1970).

In 1923 the Natives (Urban Areas) Act was passed, giving local authorities in urban areas wide powers in respect of the blacks within the municipal areas. This act was the outcome of many years of research, conferences, work by select committees (e.g. the Botha Committee of 1914, the Boyes commission of 1919, the Godley Committee, the Native Affairs Commission of 1921 and the Select Committee on Native Affairs of 1923) and official and unofficial debate. Throughout the years of wrangling, it was emphasized time and again that the Bill should 'reflect the whole range of native policy' and the final draft, while including a 'pronounced welfare focus' also encompassed a lot of control provisions (Davenport, 1971). Service contracts and domicile were to be controlled, blacks who were not gainfully employed could be endorsed out of the cities, and full responsibility for black housing was placed on the municipality. Local government was required to create separate locations for blacks, and the measure compelled all urban blacks, except those on the voters roll in the Cape, to live in these locations. Financing of locations also received attention. They were to continue to be self-supporting, neither financed from the white revenue funds, except on such terms and conditions as may be approved by the Minister, nor contributing to them. Hellmann (1969) reports a marked tendency for local authorities to follow a self-balancing policy towards their Native revenue accounts, and to make this possible, the Municipal authorities were granted rights for the production and sale of 'kaffir beer' (which, it was assumed, would be a major source of funds for the locations) as well as the power to sell trading rights, let trading sites, charge for services, receive fines

and to use the accruing moneys for the provision of services, housing etc. in the locations (Natives (Urban Area) Act, 1923). The eventual aim of this legislation was the complete segregation of black and white residential areas (Smit, 1977), but it did far more. Apart from systematizing the diverse laws of the four provinces, it provided for slum clearance and containment of disease, regularized the financial system of urban locations and provided an embryonic form of consultation through advisory boards. However, it also departed radically from the 'humane and undogmatic' ideas of early proposals, rejected the desired (by blacks) principle of individual tenure and incorporated control measures not included in the original concept. But most important, for the first time it provided a comprehensive digest of political ideas on urban blacks in South Africa and embodied them in a political decision which to this day has important political as well as spatial ramifications in the life of all South Africans.

One thing the 1923 Act did not do was to control the influx of blacks to the urban areas (Davenport, 1971) and although the area of the East Bank Location in East London had increased from twenty to one hundred and eight hectares, it was more crowded than ever before (Reader, 1961). In 1925 a municipal housing scheme was introduced, to be followed in 1927 by a self-build scheme, (Fig. 7) but African slum landlords 'raised a storm of protest' at the 'unfair competition' from the former, and it was 'quietly dropped' (Watts and Agar-Hamilton, 1970). Likewise, the self-build scheme did little to alleviate the problem, merely adding a considerable area of sordid, unwholesome dwellings, many 'unfit for habitation', to the overcrowded nucleus of the location (Dodd, 1937). While the overall picture painted above illustrates a highly unsatisfactory state of affairs, it must be taken into account that the situation has been described largely by, and from the viewpoint of, the



whites. It takes no account of a group of location dwellers who " ... without abuse exercised the privilege of owning their own houses ..." (Dodd, 1937, p. 251) or the fact that apparently crowded living conditions do not have the significance for blacks that they have for whites, because of " ... different normal living conditions ..." (Dodd, 1937, p. 250).

During the depression years after 1930 the location was " ... invaded by outsiders ... (who) came to batten upon their hapless kinsmen ..." (Reader, 1961, p. 17). This additional population, for want of finances, was unable to occupy the newly erected council dwellings, and while many of these stood vacant, overcrowding remained the order of the day in the privately constructed black shanties. In 1937, aware of a worsening in living conditions and standards of health in its black residential areas, the East London City Council called for a government inspection of the East Bank Location. The Thornton Commission, as it was called, recommended a major demolishing and replacement scheme involving all existing wood and iron buildings and large extensions to the location area. After a delay of some three years these recommendations were partially implemented, and in August 1941 a new housing estate providing leasehold tenure was opened in the East Bank Location by Governor General Sir Patrick Duncan, who gave it his name. In time the entire East Bank Location came to be known as Duncan Village (Fig. 7). The attempts of the East London City Council to give effect to the recommendations of the Thornton Commission proved inadequate, however, and in 1947 a further investigation was called for. The Welsh Commission of 1949 was the result. This investigation showed that the Duncan Village site was totally inadequate for the implementation of the Thornton Commission recommendations and suggested a satellite township outside East London for the relatively wealthier Blacks who could carry the burden of transport costs.



About this time there arose in East London's locations a branch of the militant African National Congress Youth League beside the original branch of the African National Congress (Congress A) and a second branch founded by a local black teacher (Congress B). Led by the Youth League, which had gained ascendancy over the two adult Congresses after considerable bickering and in-fighting, a defiance campaign was launched in East London in sympathy with a nation-wide movement aimed at curfew regulations, service contracts and permits to seek work. After numerous meetings in Bantu Square in the shack area of Duncan Village, it was decided in November 1952 to ban all public meetings of blacks. A religious meeting at Bantu Square was broken up by the police on 9 November 1952, and in the fracas which followed an uncertain number of blacks and two whites, a woman doctor and an insurance agent, were killed. Buildings, apparently as symbols of white administration and control, came under attack and the Roman Catholic Mission, a teacher training school and the commonage ranger's house were extensively damaged. The rioting was confined almost entirely to the shack area of Duncan Village and to a lesser extent the West Bank Location. The major rioting had ended by 10 November, but its effects were to be felt far into the future. Even before the rioting there had been strong support in the East London City Council for black housing development, but there existed a division of opinion as to how it should be implemented. Representations had already been made to the Government to prevent expansion of the locations towards Amalinda and the 1952 Natives Services Act, by imposing a levy on all employers of black labour so that the income could be utilized for the subsidization of transport from and services in black townships, opened the way for the removal of the locations from the immediate environs of white towns. This measure had the " ... greatest effect on the housing of Africans ..." (Maasdorp and Humphreys, 1975) and it was not

long before this effect was to be felt in East London. At the height of the defiance campaign, the East London City Council and the Amalinda Rate-payers Association were informed that it had been decided at ministerial level that the Duncan Village Location would remain at its existing site but that its growth would be curtailed and that a search was to be made for a suitable location site elsewhere to absorb further increases in the black population. The ramifications of this idea and its attendant decision, if slow to materialise, were nonetheless marked. On 1 April 1954 the East London City Council requested the city and water engineer to submit reports on possible sites for a new location. The reports were some time in forthcoming and in 1955 a further extension to Duncan Village was proclaimed to the south west (Fig. 7), but by this time government ideas on black housing had "... begun to show a marked change ..." (Reader, 1961, p. 31). Blacks were regarded as being capable of economic self-help and sub-economic loans for the development of the new extension were accordingly refused. Building was thus commenced on a site and service basis. On 23 November 1955 the city and water engineer reported back to the City Council that there was "... no real need for a native location at this stage or in the foreseeable future" (Reader, 1961, p. 32). The following year a newly appointed city and water engineer made a confidential report to the council on the formidable technical and financial implications of the search for a new location site. Four hundred hectares of land in Amalinda adjacent to the location had been recommended as a suitable site for extension as early as 1937 (Dodd, 1937) but in October 1955 the Government declared the land white in terms of the 1950 Group Areas Act, and the search for a location site had to be made further afield. Government assistance was again called in and the Minister of Native Affairs supported the concept of a new location entirely separate from the existing ones. He went further, and espoused the general principle

that any such black development should be separated from white areas by an industrial zone which would act as a buffer. After numerous discussions with the relevant state Departments, the City Council was in 1957 instructed to submit a formal application for the establishment of a new township. Though the creation of a municipal location was " ... more a matter for the City Council than for (the Government) ..." (Municipal records), it became clear that important facets of future policy were involved and both the Prime Minister and Minister of Native Affairs were included as members of a combined Government and City Council committee that investigated possible sites for the new township in 1957. The survey considered the black areas at Newlands and Kewlera as well as Macleantown and the area including the white farm Umdanzani alongside the national routeways to the interior and almost opposite Newlands (Fig. 8). The final decision was taken by the Minister and was arrived at in April 1957 only after " ... long discussion and many researches ..." (Watts and Agar-Hamilton, 1970, p. 37). It was the proximity to the railway line which was reportedly the major deciding factor. The farms required for the development were declared a 'released area' by Act of Parliament, and on 23 August 1958 the local press was able to announce Umdanzani as the new site for East London's native location. The report noted that the 2 833 hectare site would 'some time in the distant future' house between 100 000 and 120 000 blacks (Daily Dispatch 23.8.1958).

At that time the concept involved simply the building of a 'dormitory township' which would eventually " ... become a magnet ... (to) draw away the blacks from East London, not for work, but for dwelling purposes" (Municipal records). Mathewson (1957) holds that the erection of the houses in which the inhabitants are to live is the first priority in the construction of a black township, and it is this idea which was clearly paramount during the

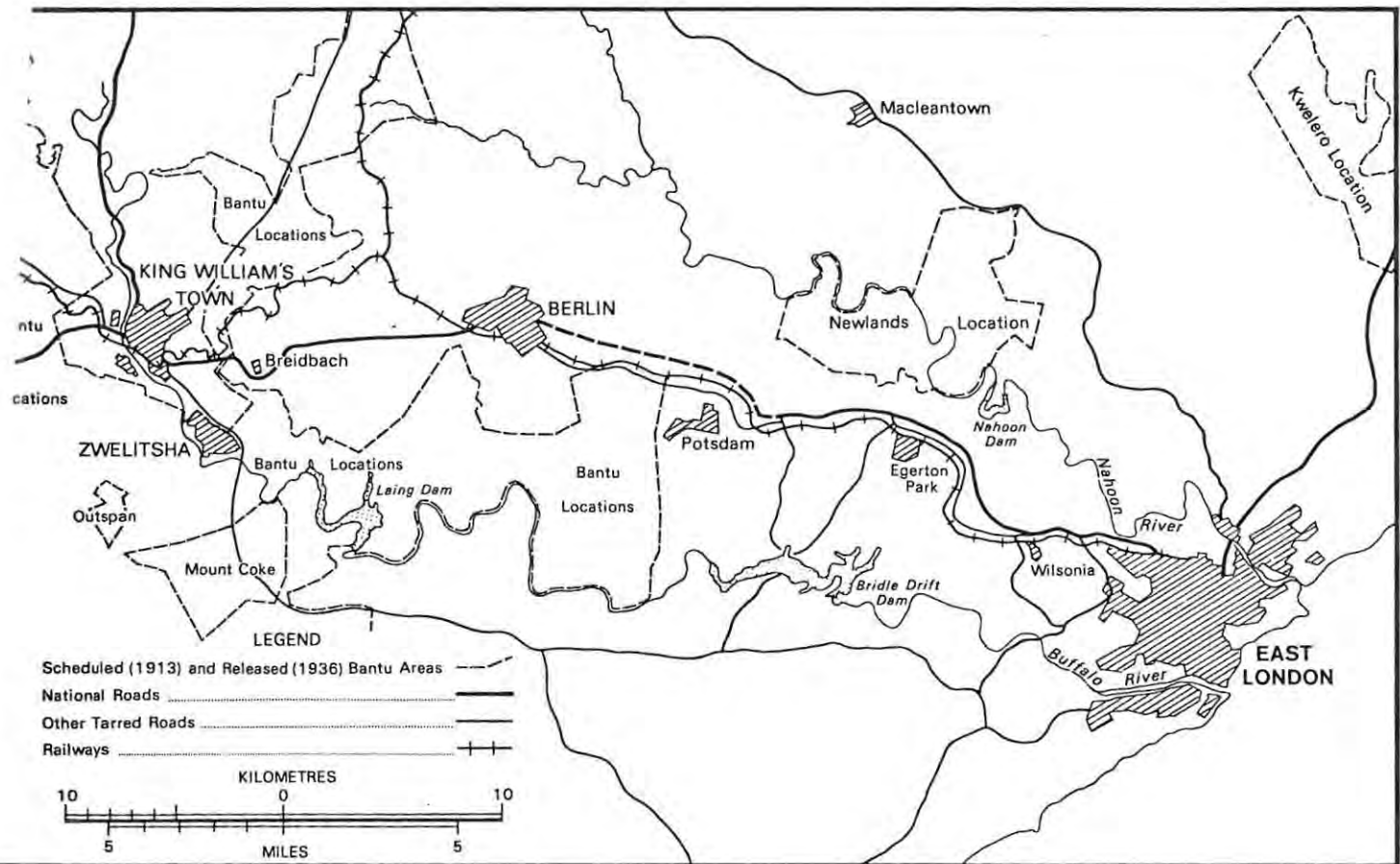


Figure 8: Alternative Sites for East London's New Location

building of East London's new location, despite Mathewson's further pleas for an "... environment conducive to a full life ..." and the planning of a self-sufficient settlement. The large-scale daily commuting envisaged in terms of ideas in general and East London's new dormitory in particular demanded both reasonable proximity to the adjacent white city and the availability of rail transport. In the case of the East London development it was envisaged that a bus service would link the township with the railway and that the latter would be the main communications link with the city (Municipal records). In this respect the new site was eminently suitable: it was already served by three railway



halts on its periphery, viz. Mount Ruth, Egerton and Umdanzani, and two major roads, viz. the Fort Jackson - West Bank and Egerton - Bridle Drift roads, provided access to the areas not served by rail. The proposed new national road provided an adequate road link with the city for the foreseeable future (Municipal records).

Further light is shed on the ideas basic to black township development by Mathewson's (1957) insistence that the " ... erection of administrative offices should be placed on top of the priority list ..." when it comes to the erection of buildings other than housing. Only after administrative needs have been provided for 'on a liberal scale', if needs be by diverting funds from other projects and holding other work in abeyance, should shops, beer halls, schools, recreation grounds, etc., be tackled. Though a brewery earns a high priority ranking (obviously with a view to the financial advantages accruing therefrom) further industrial development receives no mention at all, underscoring the dominant idea of dormitory township rather than self-sufficient town. In the case of East London's new dormitory town, design and survey work was going ahead, but it was nevertheless envisaged that it would be 'many years' before the first black families would be able to move into the new location (Daily Dispatch 23.8.1958).

#### Planning a black city

The original idea basic to the development of Umdanzani was, according to official sources, very broadly, a desire to ease the enormous physical, social, and political pressure building up in Duncan Village. But while the project was still on the drawing boards a new dimension was added. Whereas the Natives (Urban Areas) Act of 1923 had gone a long way towards



segregating the residential areas of blacks and whites, it had not succeeded in doing so entirely. In 1950 the principle of setting aside particular areas in towns for the ownership or occupation of particular race groups was adopted by the South African Government as a central policy feature, and the Group Areas Act was promulgated in order to ensure "... the complete unscrambling of the residential patterns of South African towns" (Davenport, 1977, p. 351). At the same time the concept of the rural black homelands, envisaged in the 1936 Native Trust and Land Act, was growing, and in 1951 the Bantu Authorities Act, designed to ensure greater authority for blacks over their own affairs, was passed. It made provision for the establishment of black tribal, regional and territorial authorities, and for the gradual delegation to these authorities of certain executive and administrative powers. In 1959, during the second reading debate of the Promotion of Bantu Self-government Act, the South African Prime Minister for the first time hinted at the possibility of political independence rather than limited self-government within South Africa for the homelands. The result of this new idea was reportedly an immediate decision to give priority to the building of homes in these black areas and an enforced cut-back on municipal housing (Davenport, 1977). The effect was that ideologically the scene was set for the development of a homeland township in place of the urban location, which had been the idea prior to the new developments. However, in practical terms, the idea was still some distance from fruition.

The boom years of the middle 1950s were followed by a period of virtual stagnation in the industrial sector in East London from about 1956 (Table 3) and the effects of the economic downswing eventually prompted some action from the City Council. During the years between the two world wars the city had

TABLE 3: NON-WHITE INDUSTRIAL EMPLOYEES

(Private sector 1951 - 1960)

YEAR	NUMBER	% INCREASE (ANNUAL)
1951	5 693	-
1952	6 063	6,5
1953	6 464	6,6
1954	6 798	5,2
1956	8 187	10,2
1960	8 356	0,2

apparently been " ... content to remain a distributing centre for commercial establishments and a Mecca for summer tourists" (Barker, 1966, p. 199). The growth of the industrial sector was 'actively opposed' by many residents and the local authorities alike, and during the immediate post-war years the rate of industrial expansion was similarly hampered by " ... the refusal of the local authorities to pursue a vigorous policy to attract industrialists" (Barker, 1966, p. 199). In 1960, however, it was decided to include East London and surroundings in the 'border areas' earmarked for special industrial development. The ideas behind border industrial areas in South Africa were various including economic, social, political and strategic aspects. Although implementation of these ideas has led to certain disagreements on what is in the national interest, of great moment is the fact that the ideas were regarded as highly advantageous to East London (Barker, 1966). Expanding industrialization was expected to provide employment for the burgeoning population and to prevent the disruption of black family units and family life. It was also assumed that the provision of new industries would serve the economic base of the city, and provide an economic boost (by means of the earnings of labourers) for the surrounding black areas. From early 1962, therefore, the City Council began taking 'active steps' to create conditions favourable to industrialists,

but the campaign did not meet with any great success (Barker 1966). Meanwhile, however, the State's Industrial Development Corporation (IDC) had been negotiating with a British textile manufacturer who had indicated that he might be prepared to open a factory at East London, taking advantage of the Border Area concessions. This project was " ... sprung on the city ..." according to a senior municipal official of the time, but the impending arrival of a large factory and the need to house its labour force added urgency to the planning for the new township and provided the necessary stimulus to get the project off the ground.

It was at this stage in the development of Umdanzani that the idea of a homeland town was transferred from the 'realm of fancy' to that of reality by a political decision. On 20 February 1962 the Minister of Bantu Administration and Development, as the previous Minister of Native Affairs was now known, announced that the proposed new location for East London would not be a municipal project but that the government itself would assume all responsibility " ... for the creation of a black city in the Ciskei" (Daily Dispatch, 6.9.1962). At the same time the Minister pronounced finality on his decision concerning the siting of the township, thus putting an end to the uncertainty which had surrounded the entire project since its inception. The Native Laws Amendment Act, section 12 of 1962 rezoned the land required for the township for the use of blacks (Government Gazette No. 240, 11 May 1962) and the way was cleared for the necessary administrative machinery to be put into motion. The City Council at its ordinary monthly meeting in June 1962 " ... resolved that it would subscribe to an agreement to undertake to develop Mdantsane"<sup>1)</sup> (Municipal records).

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1) The name had been altered from Umdanzani to Mdantsane on the strength of information from the Linguistic Authorities of Bantu Languages of the Department of Education, Arts and Science.

The implications of the change in status from urban location to homeland township were discussed at a meeting between the East London City Council and the Department of Bantu Administration and Development in August 1962, and certain new ideas were elucidated. Sizes of residential erven were to be increased by 25% and the area of 1% of the erven was to be increased almost fourfold to cater for those who wanted and could afford to build better housing than the basic dwellings to be provided. Freehold title would be granted to those Ciskeians who wished to avail themselves of it, and greater involvement in local government than had been the practice in the locations was envisaged. All planning already undertaken was reviewed in the light of the new ideas and with the expectation that the blacks would eventually in all respects take over the administration and running of the township. The new settlement was to be developed " ... along the same lines and to the same standard as a European Township ... (providing all types of) services, facilities and conveniences ..." Whereas all usages could not be immediately envisaged, the long-term intention was to " ... create a complete city and all the amenities that go with it ..." (Municipal records).

By November 1962 the review of the planning was completed and on 30 November the plans for Unit 1 of Mdantsane drawn up by the Town Planning section of the East London Municipality, were approved by the Department of Bantu Administration and Development. On 6 December 1962 the Public Works Committee of the East London City Council accepted an agreement between itself and the South African Native Trust to develop Mdantsane. The substance of the agreement was that the City Council would undertake the physical development of the township on an agency basis, all work being for the account of the Native Trust (Daily Dispatch 7.12.1962).

In February 1963 the IDC confirmed the impending arrival of the textile factory and requested that three hundred dwellings be ready for occupation at Mdantsane adjacent to the factory site, by the end of October that year. The challenge was accepted and by the end of 1963 the first inhabitants of Mdantsane had taken up residence. While little more than the first dwelling units had been erected, they represented the first steps towards the implementation of the idea and the culmination of an ideal. Mdantsane at last existed, certainly " ... not as an accomplished town, but (at least) as an accomplished undertaking." (Municipal records)

From the Municipal point of view the idea behind these developments was quite simple. According to a senior official of that time it was to uplift the inhabitants of Duncan Village, to remove them from the slums and shacks in which they were dwelling, and to provide them with better housing and facilities.

This section has traced the development of the various ideas on black housing in particular, and the position of blacks in the South African society in general, insofar as they are relevant to Mdantsane. The three aspects, ideas, decisions and movements, are closely interwoven to form a complex network, influencing each other, generating new ideas, different decisions and modified movements as concepts have crystallized with the passage of time. There was no single idea, no sudden realization that a particular line would be followed but rather an interaction of ideas, policies, decisions and flows within the framework of providing housing for blacks. Out of this field has arisen a new political area and Mdantsane now exists. The next chapter attempts to analyse the reality of this political area and explain, by applying the relevant parts of urban geographic theory, how the built form which has arisen reflects the ideas and decisions which preceded it.



## CHAPTER 5

## THE CHARACTERISTICS OF THE POLITICAL AREA

Following through the links of the chain envisaged by Jones, there arise as a result of political ideas and decisions certain movements, fields and political areas. In the case of Mdantsane it is the political area which is the most clearly evident aspect, as it is epitomized by the urban area itself and characterized by the built form. Yet an essential part of the political area, no less important than the built form and integrally linked with it in the case of an urban settlement, is the field. This develops out of and with the built up area and the emergence of the field, in the case of a new town in particular, is essential if a truly central place, in which city and hinterland are integrally linked, is to come into existence. The field and the political area itself are meshed and integrated into a single whole by movements which occur with some degree of regularity and which facilitate interaction. Consequently, it is extremely difficult in the urban situation to separate the final three steps in Jones' chain. They do nevertheless exist and each plays a part in forming the cohesive whole in which undertakings, establishments and individuals are associated with one another by a series of linkages, characterized by recurrent interactions which include the movement of people, the circulation of goods and the exchange of information (Carter, 1973).

The aim of this chapter is to establish the characteristics of the political area of Mdantsane in its broadest sense, to relate them back to the idea/decision component of Jones' chain and to illustrate how and to what extent the various links have affected the whole. The political area is thus

approached from the point of view of built form, movements and the urban field; evaluated in terms of the extent to which these three aspects form a comprehensive whole; and classified in the light thereof as city, satellite or suburb.

#### Built form

The urban complex that has arisen as the political area of Mdantsane is in many respects in marked contrast to both the earlier locations which were its forerunners and which it is intended to replace, and new towns elsewhere, on which the planning is partially based. Though the area of the township is nearly twenty times larger than the available land at Duncan Village, it is expected to house less than twice the number of inhabitants: gardens and 'green wedges' (at present still uncleared bush) are in evidence, laid out streets (a few tarred but most gravelled) have replaced dusty tracks, and bus queues have superseded toilet queues. In short, the casual observer is struck by a sense of planned and controlled orderliness in Mdantsane which was conspicuous by its absence in Duncan Village.

Many aspects of the new towns concept appear to have been applied in the planning of Mdantsane, and while the similarity with new towns elsewhere is more than skin deep, closer examination brings to light important differences which may be a reflection of a particular set of ideas which, in terms of unified field theory, have given rise to the local patterns.

#### Situation

Mdantsane lies at its closest point approximately eighteen kilometres from the centre of East London. The situation of the township physically separate from the white city was made in response to the broad party political ideas

of the government in power at the time of its founding. The most logical site to have been selected to fulfil the criteria demanded by governmental ideas was that adjacent to Duncan Village in Amalinda (Fig. 7). However, this alternative had earlier been ruled out by the decision to zone the area white in response to the idea of the segregation of white and black residential areas and the fear of the inhabitants of the area that they could lose their land. The alternative land at Macleantown and Kwelera was not only further from East London than the Mdantsane site, but was less accessible in terms of existing transport links (Fig. 8). Proximity to existing black areas may also have played a part in the selection, for Mathewson (1957) notes that black townships should be so situated that they have a hinterland radiating away from non-black areas. The Mdantsane situation lent itself more readily than the alternate sites to consolidation with a homeland and, indeed, by the time building started in the new township, land right up to the edge of the proposed Mdantsane 'released area' had been included in the Ciskei. The natural hinterlands of Kwelera and Macleantown, on the other hand, lay rather within the 'white corridor' between East London and Queens-town. It is reported, though, that the final decision on the situation of Mdantsane was based on two other ideas: firstly that the railway would prove to be the major commuting link with East London, and secondly, the concept that white and black areas should be separated by an industrial buffer zone. Again the Mdantsane site fulfilled the criteria better than the alternatives at Macleantown or Kwelera, but why the final choice should fall on white farm land at Umdanzani rather than black trust land virtually just across the road from it at Newlands (Fig. 8), is uncertain. It has been suggested that it was regarded as undesirable that the inhabitants of the township should have to cross the national road to reach the railway

stations, but this reasoning has not been officially confirmed. The situation of the township so close to East London's main water supply, the Bridle Drift dam (Fig. 8), was also questioned at the planning stage and discussed at some length between the municipality and the Department of Bantu Administration and Development. The matter was not resolved until the City Council was assured " ... that in the event of any adverse situation arising in regard to the water supply the Department of Bantu Administration and Development would take the necessary steps to correct the position" (Municipal records).

### Site

Mdantsane is situated on a piece of land measuring roughly 6,7 kilometres from east to west and 4,2 kilometres from north to south. The total developed area in March 1977 was 2 639 hectares. The site consists of a series of valleys and ridges running generally in a north-south direction. The land slope varies between 1:4 and 1:20 with an average of 1:12, and drains southwards towards the Buffalo River. In the south the site is bounded by the Bridle Drift Dam on the Buffalo River, in the north and west by the railway reserve and in the east by the westernmost tributary of the Shangani River. The valleys in the township are drained by streamlets such as the Toulani, the Umdanzani and their tributaries. This site is served in terms of transport by the South African Railways mainline on its perimeter, the dual carriageway national road to East London and a newly constructed single carriageway link road for the exclusive use of township traffic. As is common practice in South Africa the site is surrounded by a buffer strip of undeveloped land varying in width from approximately 300 to 500 metres in accordance

with departmental prescription (Mathewson, 1957), and the whole area is separated from East London by the now fully developed Wilsonia industrial area, which it was expected would absorb a large proportion of the labour force of the township. The site is also potentially easily accessible to the West Bank industrial area 13,5 kilometres downstream on the Buffalo River and a railway line linking the two has already been suggested in discussions between the Department of Bantu Administration and Development and the East London Municipality.

### Form

The form of any town is to a certain degree the product of the physical site on which development has taken place and this is clearly discernible in the case of the Mdantsane political area. The cost of developing such a dissected site is obviously greater than would be the case on a more level piece of ground, but the effect is not merely financial: erf sizes and town plan also bear the stamp of the topography.

### Erven

The original plans of the East London Municipality provided for erven of  $260\text{m}^2$  which was typical of black locations and townships in South Africa at that time. The Department of Bantu Administration and Development specifications, on the other hand, required a minimum area of  $464,5\text{m}^2$  for a homeland town. However, when it transpired that in order to provide the twenty thousand erven envisaged within the confines of the original proposed site erf sizes would of necessity have to be reduced, the Department dropped its limit to  $325\text{m}^2$ . Clearly ideas and decisions cannot always match each other. Indeed, under certain circumstances



they may counteract one another and the compromise between ideas and decisions on erf sizes in Mdantsane exemplifies the 'reverse flow' which Jones (1954) stressed, i.e. available land in the political area conditioned ideas concerning erf sizes.

The reduction in the size of erven in the township is not unique in South African urban development. After considering the economical aspect the townships board accepted a similar reduction in respect of Vanderbijlpark and Sasolburg (Kirchhofer, 1959). However, the difference in standards between black and white developments, and between Mdantsane and the new towns of the Vaal triangle is marked (Table 4). Though the actual reduction in erf size was of similar magnitude, the percentage decrease was far larger in respect of the smaller erven of the black township.

TABLE 4: Erf Sizes in South African New Towns.

TOWN	ERF SIZE (m <sup>2</sup> )		
	NORMAL	MAXIMUM	MINIMUM
<u>WHITE:</u>			
Vanderbijlpark <sup>1)</sup>	650	4 180	650
Sasolburg <sup>2)</sup>	1011	1 858	669
New Developments <sup>2)</sup>	-	-	850
<u>BLACK:</u>			
Mdantsane <sup>3)</sup>	325,0	929	325,0
Daveyton <sup>4)</sup>	313,5	313,5	313,5
Normal standard <sup>4)</sup>	464,5	929	464,5
Natal standard <sup>4)</sup>	325,0	929	325,0
1950 standard <sup>4)</sup>	325,0	-	297,0

- Sources: 1) Anderson (1959)  
 2) Kirchhofer (1959)  
 3) Municipal records  
 4) Mathewson (1957)

### Town plan

The basic town plan also required adaptation to the site and the streets have been laid out in accordance with the dictates of the slopes encountered there. However the layout is not simply the product of the topography. Equally important were the explicit instructions and decisions of the political authorities. The basic plan is laid down and strictly controlled by the Department of Bantu Administration and Development and many of their prescriptions reflect modern planning principles and ideas. For example the township is divided into residential units by main through-roads; and vehicular access to the spine road from residential erven is avoided. As far as possible cross junctions have been replaced by T-junctions, and the familiar grid pattern of the old locations has given way to curves, loops and triangles. As a result of the latter two characteristics, the UI value of Mdantsane is low, viz. 0,14. It is nonetheless notably similar to the values reflected by the new towns in Table 1. However, because of a change in approach to town planning which has resulted in uniform grids being increasingly replaced by non-uniform plans in newer developments, it is necessary to consider not only the UI, but also the CI value for Mdantsane. Once again a figure comparable with that of the new towns in Table 1 emerges viz. 0,78. Whereas the values remain lower than those of grid pattern towns the CI is considerably higher than the UI. It thus appears that though the plan of Mdantsane is not a rigid grid or uniform to any marked degree, the relatively high CI value reflects centralized political control in the planning and development of the township.

Despite the apparent similarity between Mdantsane and other new towns as illustrated by the comparable UI and CI values, the township has a number

of unusual features which appear to be related to political decisions rather than town planning concepts. For example no residential erven may back onto undeveloped land 'for health reasons'; culs-de-sac, common in most new towns, are absent; the township is encompassed by a perimeter road and access to the settlement is by means of one road only, which crosses the entire built-up area from ESE to WNW (Fig. 9). One is led to believe that concepts and dictates of national internal security have played a role in the latter prescriptions.

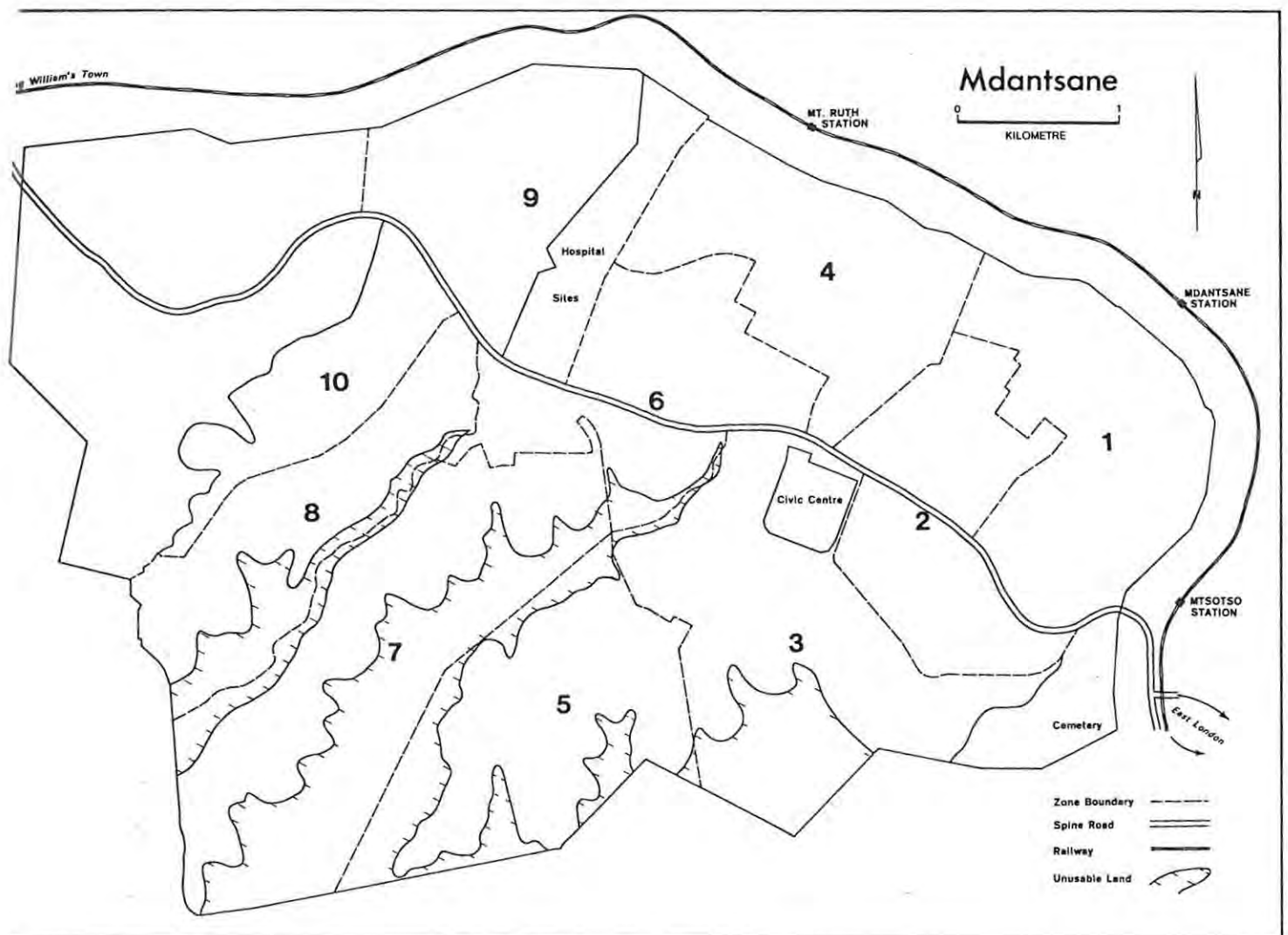


Figure 9: Mdantsane: Layout and Zonal Divisions

## Townscape

The uniformity in respect of buildings is even more marked than that of plan (Fig. 10). Much of the urban theory applicable to townscape studies e.g. that illustrating the more significant facets of the urban scene and various periods of development and the developmental history of the settlement, becomes largely irrelevant in a town in which buildings are as young and uniform as those in Mdantsane. However Smout's (1971) suggestion that building materials are related to local resources is clearly illustrated in the township. The entire visual image of Mdantsane with its uniform buildings, narrow, untarred streets in many areas, and largely undeveloped open spaces is a reflection of the financial resources available to the developers in relation to numbers to be housed and of the majority of the inhabitants themselves. As at the end of 1976, 97,9% of all buildings in Mdantsane were the standard houses, and 97,5% of all erven were the standard size. The standard residential erven are 15,24m x 21,34m, while those fronting onto the spine road are slightly larger. These erven, with a minimum width of 18,29m and an area of 560m<sup>2</sup>, make up 1,5% of the total number of residential erven. The houses erected on this 99% of the residential erven are all single-storey, free-standing constructions. The original dwellings (Type 51/6, Figure 11a) consist of four rooms with no ceilings and outside sanitation. Walls are of unplastered, painted concrete blocks and roofs are of asbestos sheeting. Floors are of uncovered concrete. In newer developments these houses have been adapted to allow for inside shower and toilet (Type 51/9 Fig. 11b).

The great majority of these houses are rented. In the 1975 general survey, 86,5% of the respondents indicated that they had neither purchased, nor were



1



4(i)



2



4(ii)



3

FIG. 10A: THE RESIDENTIAL AREAS.

1. In uniformity in respect of buildings.
2. Standard housing.
3. Churches provide some variety.
4. Private housing in the owner — build areas.





1



4



2



5



3

FIG. 10B: COMMERCE AND INDUSTRY.

1. Commercial and administrative block.
2. Neighbourhood shopping centre.
3. Brewery — the major industry.
4. Beerhall — important money spinner.
5. Poultry battery — just opened.



1



4



2



5



3

FIG. 10C: MISCELLANEOUS.

1. The provision of schools is a high priority.
2. Cinema in the civic centre.
3. The hotel is proving increasingly popular.
4. Children's home.
5. Sisa Dakashe rugby stadium.

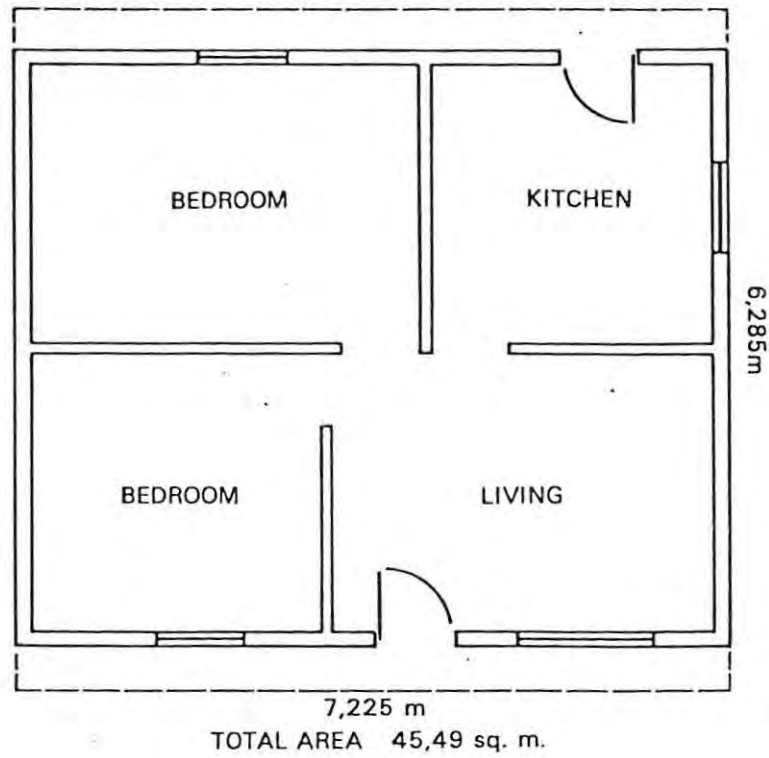


Figure 11 (a): Floor Plan: Original Housing Type 51/6

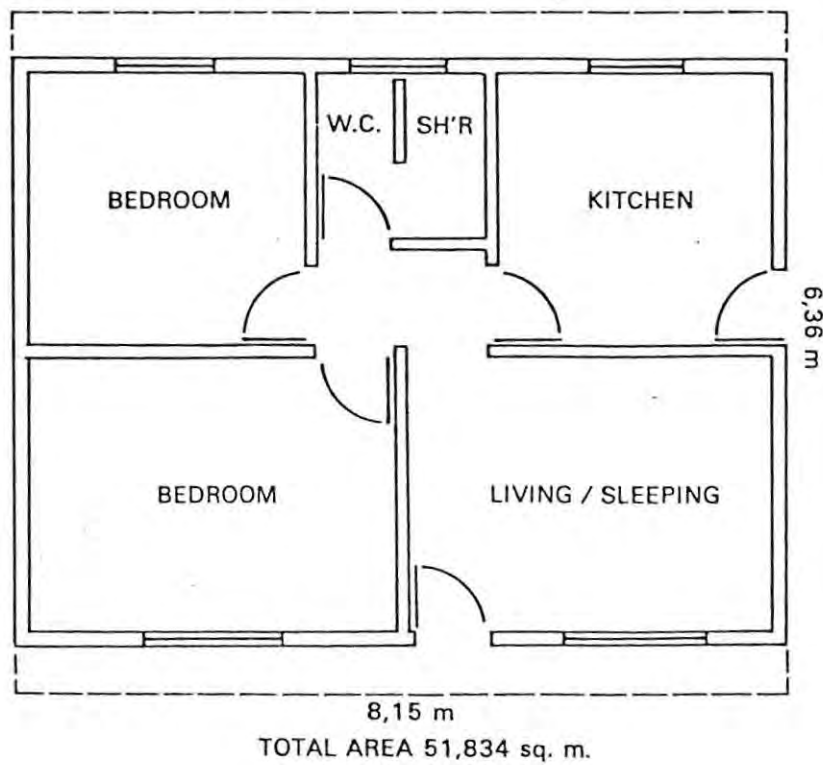


Figure 11 (b): Floor Plan: Newer Housing Type 51/9

in the process of purchasing their houses. However, the high incidence of renting does not necessarily reflect choice. In the same survey 34% of respondents indicated that if they had the financial means to do so, they would buy a house. This response was more than twice as high as that to any other alternative.

Rents amount to R5.99 per month for a type 51/6 or R6.57 per month for a type 51/9. This cost represents 6,5 to 7% of the average monthly wage of breadwinners in Mdantsane, and it includes servicing i.e. street construction and maintenance, fencing, water and refuse removal. Because the township is in a homeland, land tenure is permitted, contrary to the situation in locations or non-homeland townships. Plots may be purchased by Ciskeian citizens at R13.20 to R26.40, depending on size. House prices are subsidized by the South African Government, and whereas present costs of erection are R1 450.00 for a type 51/9, dwellings are still being sold at 1967 cost levels i.e. R750.00 for type 51/6 and R820.00 for type 51/9. A prospective purchaser with sufficient funds can circumvent the usual allocation procedure, in which houses are allocated in order of application as they become available, by paying the full cost of erection himself. Such houses do not make use of any Government funds and are additional to the normal building programme, so that those on the waiting list for housing are not jeopardised in any way.

Other variations available to the occupier/purchaser at additional cost include plastered walls and ceilings (R255) and electricity (R400), while a number of three-bedroomed houses with tiled bathrooms and wall to wall carpeting have recently become available at a cost of R5 000. With these minor exceptions there is an almost complete lack of individuality in

housing in Mdantsane, and the only visible differences between houses are in terms of colour and the fact that on slopes of steeper than 1:6, split level housing is introduced. In the light of the above it is of interest to compare two townscape elements distinguished by Smout (1971). He suggests that buildings which do not exhibit marked contrast in size or architectural style present a 'pleasing aspect' and should be regarded as being 'in harmony' with each other. Judged on these criteria the Mdantsane townscape is extremely harmfulous and like so many extreme cases, it is not successful. Smout (1971) acknowledges the desirability of variety in his discussion of another townscape element, viz. tone. This he defines as " ... the nature of surfaces (brick, concrete, stone, etc) and their colour" (Smout, 1971, p. 35). Variations in tone, he suggests, should be " ... intentionally employed by architects in an attempt to provide variety in what would otherwise be dreary monotonous structures" (Smout, 1971, p. 35). Clearly with few contrasts in architectural style and virtually none in tone other than colour, the dreary monotony he feared has in fact materialized.

On the remaining 1% of erven, however, some residential variety has emerged. Each zone has an 'owner-build' area where the residents with the financial means to do so may have houses erected to their own design and own account on erven of 929m<sup>2</sup>. To date twenty four such houses in the typical white middle-class architectural idiom have been erected in zones 1, 2, 4 and 6 (Fig. 10).

Of the non-residential buildings, 85% are similarly largely uniform. They include the single-storey, colour-washed, asbestos-roofed schools, shops and administrative buildings. The only exceptions to this are the twenty three churches, which display some variety of architecture and the large, modern



hospital in Zone 3, with its three-storey nurses home; the double-storey office blocks built and administered by the Xhosa Development Corporation in Zones 3 and 7 and two double-storey business premises in Zone 2. A number of water towers in different parts of the township (also a feature in Israeli new towns) and the pavilion of the Sisa Dakashe Rugby Stadium, the more noticeable and striking as a result of its hilltop position near the Civic Centre, provide the only other variety.

Martin and March (1972) consider that the intentions behind architectural forms are even more important than the forms themselves, as the design of an object becomes a statement of conviction about what a society needs and the way it considers its surroundings. Continuous reassessment of needs, desires and ideas is essential if developing principles emerging from theory are not to become limiting dogma. Practical reasoning without intuition, creative thought and feeling, and the erection of structures 'thought out' and 'built to a purpose', though perhaps highly efficient in economic terms, appears to result in sterility and is not effective in creating "... an environment conducive to living a full and happy life", regarded by Mathewson (1957) as the major priority in black township development after the provision of shelter.

Two dimensionally then, i.e. in respect of town plan and erven, there is a degree of similarity between Mdantsane and new towns elsewhere. In respect of the third dimension viz. townscape, on the other hand, there are marked differences. Nowhere else has there been so notable a lack of variety in building styles, sizes and heights. The smallest of the Israeli new towns, which to begin with consisted largely of two-storey blocks of four flats, originally displayed a similar lack of individuality, but it was in respect

of this very characteristic that the first changes were made. In the case of Mdantsane the uniformity can be traced back to certain political ideas and convictions current at the time of the township's inception. From the outset it was planned, and the houses and other buildings designed, to cater for the industrial labourers of East London. Mdantsane was intended to serve a single economic group, hence the general lack of diversity in housing. This basic premise was strengthened by two ideas that were applied in the construction of Mdantsane. Firstly there was the need to provide housing in the shortest possible time, not only to relieve the overcrowding and resultant unhygienic conditions in Duncan Village, but also to cater for the labour requirements of the proposed textile factory and the expected and continuing influx of blacks from rural white areas and the homeland. The second aspect is more generalized as it reflects the idea expressed by Mathewson (1957) who holds that the first objective in township development is to supply shelter at minimum cost. That both the time and cost factors influenced the housing in Mdantsane is suggested by the fact that municipal records indicate that brick housing was considered preferable to houses built of concrete blocks from the points of view of both authorities and tenants. However, both erection time and cost are increased in brick constructions, and the idea was thus dismissed, and a decision taken to erect uniform concrete block dwellings in order to remain within both financial and time limits. The effect of this changed idea was marked, and in the early years of development the rate of construction was extremely high (Table 5). In recent years financial constraints have intervened causing the slow down in building reflected in the table.

It is not only in residential areas that ideas are clearly visible in built form. The idea that the township was to be a dormitory, or at most a

TABLE 5: Mdantsane growth

YEAR	HOUSES BUILT	CUMULATIVE TOTAL	OFFICIAL POPULATION
1963	135	135	
1964	1 768	1 803	8 202
1965	2 513	4 316	
1966	1 838	6 154	38 940
1967	834	6 988	
1968	1 215	8 206	53 281
1969	1 485	9 691	
1970	1 495	11 186	66 380
1971	1 288	12 474	68 750
1972	1 020	13 494	82 083
1973	818	14 312	
1974	903	15 215	86 225
1975	760	15 978	98 289
1976	685	16 663	115 628

Sources: Benbo (1975), Official records.

satellite of East London, rather than a distinct and independent city (despite isolated claims and suggestions to the contrary) is reflected also in the paucity of commercial, industrial and administrative buildings particularly in comparison with other new towns (Table 6). Political ideas on a national level limited the number, location, size and type of commercial undertaking that could be run by blacks, and encouraged industrial development in white rather than black areas. On the other hand, the relative abundance of school and church sites provided for by the planners (cf. Table 6) is in keeping with the idea that Mdantsane would be the place where people lived, brought up their children and spent their weekends.

TABLE 6: COMPARATIVE FIGURES FOR MDANTSANE<sup>1)</sup> AND SELECTED BRITISH NEW TOWNS<sup>2)</sup>

TOWN	POPULATION	CAPITAL EXPENDITURE (R MILLION)	DWELLINGS		SHOPS	INDUSTRIES	SCHOOLS NO.	CHURCHES NO.	PUBLIC HOUSES <sup>3)</sup>	COMMUNITY BUILDINGS
			PUBLIC ERECTION	PRIVATE ERECTION						
MDANTSANE	115 628	39	16663	24	52	2	42	23	5	4
STEVENAGE	63 000	85,3	16897	893	319	86	37	14	14	9
HARLOW	78 000	95	20803	715	348	231	33	8	13	46
GLENROTHES	27 200	41,5	7809	54	74	59	13	7	4	17
SKELMERSDALE	19 920	36,1	4857	145	69	56	13	2	3	11
BASILDON	78 000	117,4	18135	535	368	149	41	17	12	19
CRAWLEY	66 000	?	12338	2323	292	166	32	20	11	44
CUMBERNAULD	27 725	58,4	8695	129	90	98	15	8	5	19
LIVINGSTON	9 200	31,7	4630	31	33	25	5	2	1	5
BALLYMENA	23 500	,3	371	827	5	3	1	1	-	1

<sup>1)</sup> AS AT 30.6.1977

<sup>2)</sup> AS AT 30.9.1969

(AFTER SCHAFER 1970)

<sup>3)</sup> Beer halls in Mdantsane.

### Structure

It was largely on the basis of the neighbourhood concept espoused by Ebenezer Howard (1898) in his Garden City concept that the original planning of Mdantsane was carried out by the East London Municipal Town Planning Section. The result is that, as in new towns elsewhere, the various land-use regions within the township are, generally speaking, not distinct, separate, homogeneous units. Instead, most types of land use are found to a greater or lesser degree within each neighbourhood (Fig. 12), and the relative significance of each land use type revolves around the proportion of land devoted to each type of usage (Table 7) and the relative situation and accessibility to the township as a whole.

#### Recreational land use and open ground

The numerous valleys which dissect the site of the township have resulted in " ... a greater percentage of open space than is usual (in this type of development) ..." (Municipal records). The ratio of open space to population in Mdantsane is 2,78 hectares per 1000, and this is certainly a marked improvement on the situation in Duncan Village and even on the recommended ratio of 0,405 hectares per 1000 in black townships (Mathewson, 1957). The proportionate amount of open land also compares favourably with that in developments elsewhere (Table 7), but its usefulness is limited. In Sasolburg, for example, the open spaces provide for a continuous circumferential system of walkways almost completely isolated from vehicular traffic, which frequently broaden out into bays for children's playgrounds and informal games, and with radials reaching in to the town centre (Kirchhofer, 1959). In the case of Mdantsane on the other hand the green wedges have to date remained largely uncleared bush areas in the steep-sided valleys, playing a divisive rather than connective role, and are of little recreational value.



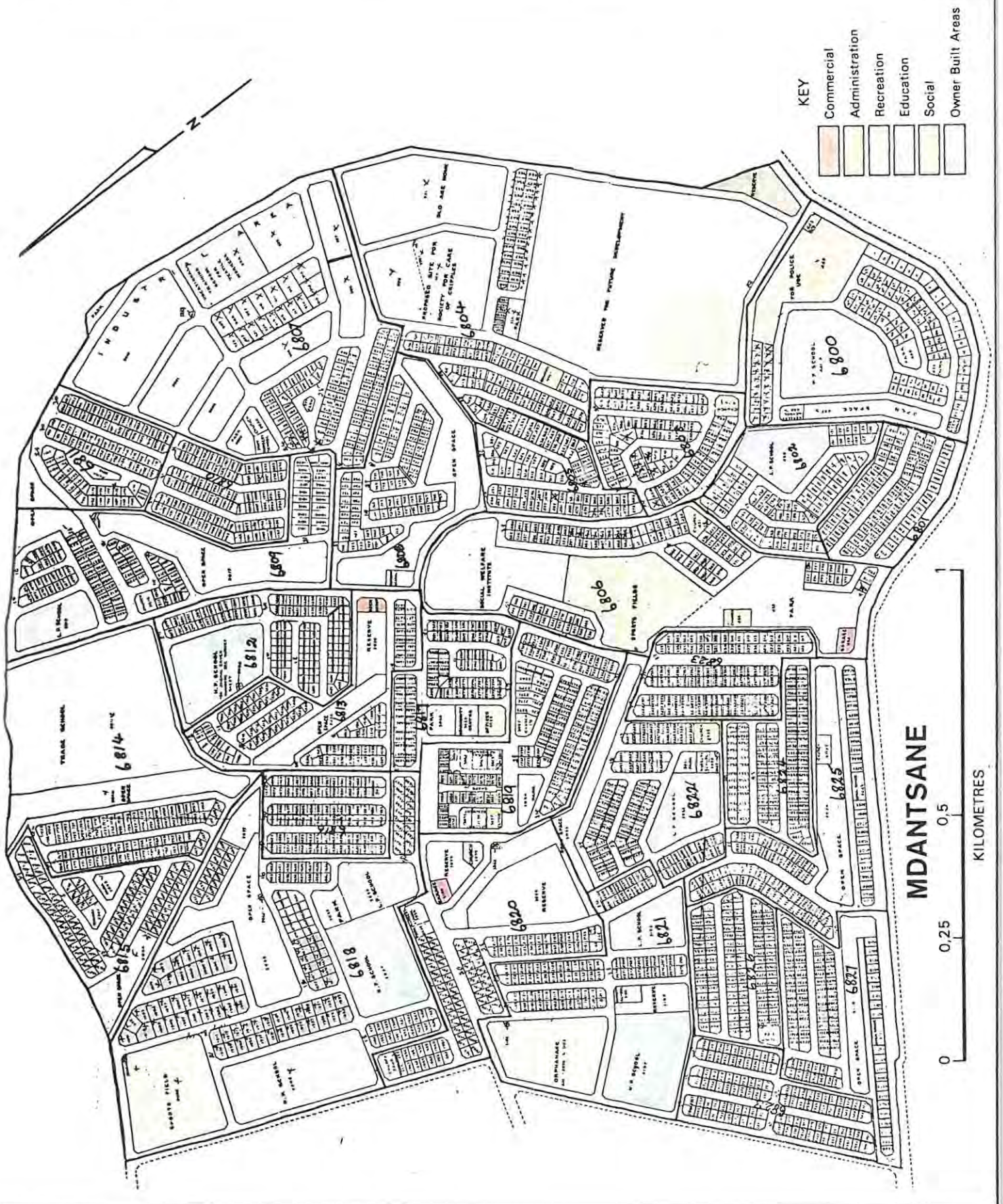


Figure 12: Land Use: Planning Unit 1.



TABLE 7: PROPORTIONAL LAND USE IN SELECTED SETTLEMENTS

	5 PLACES IN THE MIDKAR AREA	10 PLACES IN NATAL	28 PLACES IN U.S.A.	CORPUS CHRISTI (111 000 pop.)	US SATELLITES (over 25 000 pop.)	BLACK TOWNSHIP (recommended)	POTCHEFSTROOM (township)	MDANTSANE (115 000 pop.)
	% of area	% of area	% of area	% of area	% of area	% of area	% of area	% of area
1 Vacant Land. reserved undeveloped								1,6 <u>7,6</u>
2 Privately Utilized Land	<u>11,3</u>	<u>22,5</u>	nil	nil	nil	<u>15,0</u>	<u>22,4</u>	<u>9,2</u>
Residential								
Single	31,8	28,9	31,9	39,1	31,0			33,9
Two-family	1,8	0,5	5,9	2,0	5,3			nil
Multi-family	<u>0,7</u> 34,3	<u>0,5</u> 29,9	<u>1,8</u> 39,6	<u>2,7</u> 43,8	<u>3,9</u> 4,02	43,2	46,5	<u>0,2</u> 34,1
Commercial								
Hotels	0,4	0,4						
Warehousing	0,4	3,1						
Shops and Offices	<u>2,3</u> 3,1	<u>3,1</u> 3,5	3,1	5,0	3,1	0,9	2,0	0,4
Industrial	<u>2,2</u>	<u>4,7</u>	<u>5,7</u>	<u>7,5</u>	<u>13,6</u>	<u>nil</u>	<u>nil</u>	<u>2,0</u>
Total:	<u>39,6</u>	<u>38,1</u>	<u>48,4</u>	<u>56,3</u>	<u>56,9</u>	<u>44,1</u>	<u>48,5</u>	<u>36,5</u>
3 Publicly Utilized Land								
Public and semi-public								
Administrative	2,2	3,0				0,9	2,2	1,6
Institutional	3,1	3,2				1,8	1,7	9,7
Educational	<u>10,9</u> 16,2	<u>4,4</u> 10,6	13,3	11,4	6,8	<u>8,8</u> 11,5	<u>5,7</u> 9,6	<u>10,1</u> 21,4
Open Space	7,5	1,8	5,1	2,1	3,5	6,4	0,8	5,1
Streets	20,5	21,2	28,3	28,6	26,8	23,0	22,6	27,9
Railway Reserve	4,3	6,8	5,0	1,6	5,9	<u>Nil</u>	<u>Nil</u>	<u>Nil</u>
Total:	<u>48,6</u>	<u>40,4</u>	<u>51,7</u>	<u>43,7</u>	<u>43,0</u>	<u>40,9</u>	<u>33,0</u>	<u>54,5</u>
Source	Cook (1971)	Smout (1969)	Bartholomew (1955)	Bartholomew (1955)	Bartholomew (1955)	NATIONAL HOUS- ING & PLANNING COMM. IN MATHEWSON (1957)	MATHEWSON (1957)	MUNICIPAL RECORDS

In terms of developed recreational land a similar picture emerges. Mdantsane with 4,05 hectares per 1 000 population is generally well catered for in relation to other black townships and locations, where the recommended ratio is 0,5 hectares per 1 000. In addition to school fields the township has one olympic-standard swimming pool, eleven tennis courts, three rugby fields, two soccer fields and a cricket field. An eighteen-hole golf course to international standards is at the planning stage. This list of facilities presents only part of the picture, however. It should also be taken into account that the average single commuting trip for an Mdantsane resident takes sixty eight minutes (Matravers, 1977), and as none of the sports facilities is floodlit, inhabitants working in East London cannot avail themselves of the facilities to any large extent. Thus, though the situation is a great improvement on the single recreational centre on the edge of Duncan Village, there remains great scope for advancement. The stated idea of 'improvement of facilities' has apparently been met in terms of the number of facilities provided, though when it comes to accessibility and usefulness, the success is less marked. The goal of providing 'all the amenities' compatible with city-status is still far from fruition.

#### Educational land use

In keeping with the new towns concept, educational establishments are spread throughout the township, which is comparatively well-endowed in terms of the number of educational institutions and land allocated for educational use (Tables 6 and 7). Provision was made in the planning stage for one lower primary school per 600 families, one higher primary school per 900 families and one post primary school per 1800 families. The laid down ratio in white new towns is one primary school for every 400 families and one high

school for 1200 families. Sites were allotted throughout the township, so that no house is more than one kilometre from its nearest school and when development is complete, even post primary pupils will be able to walk to school without crossing a major road. Schools completed and taken into use to date (July 1977) are listed in Table 8.

TABLE 8: Mdantsane Schools.

TYPE OF SCHOOL	NUMBER	CLASSROOMS
Pre-school	1	
Lower Primary	20	200
Higher Primary	12	120
Junior Secondary	3	36
Senior Secondary	2	35
Secondary combined	2	

This breakdown reflects the widely-held idea that for many, education will not (and need not) proceed beyond the third year. The actual educational levels achieved by Mdantsane residents are reflected in Table 9 and bear out this contention.

TABLE 9: Educational Levels of Mdantsane Residents

Highest level attained	nil	below Std 3	Std 3-5	Std 6-7	Std 8-9	Std 10
Attained by:	47 163	24 381	19 041	10 694	3 014	491

Highest level attained	up to Std 7 and diploma	Std 8 & 9 and diploma	Std 10 & diploma	All Degrees
Attained by:	47	248	157	9

Source: Republic of South Africa Population Census 1970.

There are 45 837 children in the 0 to 15 years age group in Mdantsane (Republic of South Africa, Population Census 1970). Actual numbers at school were not available, but if the age distribution is normal of the black populace, it would indicate that 28 418 are of school going age, giving a ratio of 729 pupils per school. The equivalent figure for whites in the entire Cape Province during the first quarter of 1977 was 269. (Education Gazette 6 October 1977).

Centred on the township, but serving the entire Ciskei with a population of 529 635 (Benbo, 1975), is a training college for nursing and paramedical services which will ultimately cater for 488 students; an industrial school; a textile workers' training school; a technical school and an in-service training centre for teachers.

The educational sector in Mdantsane reflects fairly accurately the ideas expressed in respect thereof and the decisions taken in this regard: i.e. the idea that Mdantsane is for living rather than working emerges clearly. In addition, the aim of 'upliftment and provision of facilities' referred to earlier probably comes closer to fulfilment in the educational sphere than in any other.

#### Industrial land use

South Africa's Border Industry policy required that industrial developments be sited in white areas adjacent to homelands rather than in black townships themselves, and there was thus no idea of balancing prospective employees and job opportunities in Mdantsane, as there was in the new towns in Britain and to a lesser extent in the United States. However industry is not excluded and 2% of the total developable area of the township has been set



aside in two separate blocks for industrial use: one adjacent to the vocational training school in Zone 1, near Mdantsane station, and the other near Mount Ruth station in Zone 4 (Fig. 12). Not only is the proportional area allocated to industry comparatively limited (Table 7), but Mdantsane also has fewer industrial undertakings than any of the British new towns (Table 6). A brickyard, brewery and poultry undertaking are the only industries in existence (November 1977). Consequently, even compared to the American idea that half the working population should be employed in the town in which they live, the Mdantsane employment figure is low with only 408 people being employed in the industrial sector in the township. The Department of Bantu Administration and Development apparently envisages no change to the idea in respect of the industrialization of Mdantsane: it regards the future development potential in this sector in the township as poor (Department of Bantu Administration and Development - unpublished map). Clearly then, the idea is given substance in the form of the town and in this sector, probably more than in any other, the idea of Mdantsane as a dormitory suburb rather than an independent city or even satellite is clearly reflected.

#### Commercial and administrative land use

In planning, land for the development of a commercial sector has been set aside in Mdantsane. Commercial sites are available in the Civic Centre (Fig. 13a) and in addition, each zone has a small neighbourhood shopping area and a number of isolated corner stores (Fig. 12).

Business sites are allocated on the basis of 15cm of frontage per residential erf and the 115 628 official inhabitants are at present



served by 52 businesses, with a further 37 in various stages of development. General dealers are the most ubiquitous (26) with cafes (5) butcheries (4) and bottle stores (4) also well represented. A wood-and-coal merchant, a bookshop and an outfitter are the only speciality stores not catering for food. There is a hotel and a boarding house, an undertaker, one wholesaler and six refuse removal contractors. Figure 13b reflects the reality of the situation in the Civic Centre as at July 1975. As is the case with other types of land use distribution of outlets is similar to the situation found in most new towns. However, in terms of numbers of undertakings and proportions of land allocated thereto Mdantsane is not well served (Tables 6 and 7). There is virtually no duplication of types of outlet, except in the general dealer/cafe spheres. Consequently little competitive shopping is possible. Mathewson (1957, p. 35) holds that "... great care should be taken in the early stages not to provide too many shops ..." but suggests that sufficient shopping facilities should be available to provide for a variety of trade and competition once demand allows this without acting to the detriment of existing businesses. Whereas shoppers in new towns in many countries have felt the lack of shopping facilities, particularly of the high order variety, few are as limited as those in Mdantsane.

Professional and administrative land use occupies less than 3% of the total area and is intermingled with commercial use. The largest single concentration is in the Xhosa Development Corporation Building in Zone 3.

As in so many other respects, the situation with regard to commercial and administrative land use in Mdantsane represents an improvement on that in the locations, black towns in general and even in Ciskeian towns, while not measuring up to the standards in comparable white towns or new towns else-

where. Like most other sectors, commercial land use reflects the basic idea of Mdantsane as a dormitory rather than a fully-fledged city or satellite.

#### Social service land use

Medical and social services are also deployed to a large extent on the neighbourhood basis. There are three permanent clinics and nineteen temporary ones, the latter all located in converted houses situated in various parts of the township. In addition there is the Ciskeian regional hospital, opened in 1976. It will ultimately be the largest single employer in the township providing 2 700 jobs. It serves the whole Ciskei and has 1 400 beds, twelve operating theatres, an incubation ward, casualty and outpatients sections, medical and post-operative intensive care units and a pathological laboratory. There is also a TB hospital with 69 beds, a cripple care unit and 93 rent-free two-roomed houses for social welfare use.

#### Transportation land use

Apart from the anomalies noted earlier the road network is, in respect of basic layout, typical of other new towns. Though Mathewson (1957, p. 27) holds that in keeping with the idea of providing facilities at minimum cost, the roads will of necessity be narrow, the proportion of land allocated to streets is similar to that found in similar sized towns elsewhere (Table 7). Another aspect of transportation land use which is atypical of new towns is the fact that there is no garaging for private vehicles within the township, except where house owners have provided their own, apparently reflecting preconceived ideas about the



economic status and demands of the group to be housed. The situation with regard to the railways is also unusual. Mathewson (1957, p. 29) claims that it is policy " ... to have a railway spur to a township in order to establish a railway station ... for the sole use of the inhabitants ...". The difficult terrain and resultant cost precluded this development in Mdantsane. Consequently, despite the fact that a line borders the township on two sides, the railways have no land in Mdantsane itself. Cost and the difficult terrain were not the only causal factors in this situation. It has also partly materialized in response to a definite idea and decision that main lines should not pass through townships. Adherence to this concept is reflected in Table 7. Plans for the new extensions to the township at Potsdam hold promise of an improvement, however. They make provision for a loop line through the settlement, though the main line will remain on the boundary.

The relative inaccessibility of the railway, resulting from the fact that it is neither in the township itself, nor on the main bus route probably accounts in large measure for its lack of support as a commuting link.

At present the land use patterns in Mdantsane display a distinct divergence between ideas and reality. On a map recreational facilities appear to be accessible to all parts of the township: practice has proved they are not. In theory a commuting distance of less than twenty kilometres should not raise any particular difficulties: in reality it has become a major burden. Plans exist for an ambitious Civic Centre (Fig. 13a): in fact it has not materialized (Fig. 13b). The concept of decentralized commerce has much to commend it: in Mdantsane its potential shows few signs of being realized.



Whether the faults are the result of a time lag or a more deeply rooted basic error in idea, only the future can tell.

### Functional character

#### Attribute functions

As far as attribute functions are concerned, Mdantsane has all these in Cook (1969) except a library and newspaper (Table 10).

Library facilities in East London were recently opened to blacks in a controversial move which resulted in the threatened withdrawal of the provincial subsidy, and at present the reference section of the library is open only to students of the University of South Africa.

The local press in East London gives wide coverage to township and homeland affairs, and publishes a weekly supplement catering specifically for its black readership. Four black journalists are based in the township.

The police station is in Zone 1 near the entrance to the township and further land has been reserved for expansion on adjacent lots as well as in Zone 3. It is at present still under the command of a white officer of the South African police force, and employs 166 men in total.

There are two district surgeons attached to the Ciskeian Department of Health based in Mdantsane.

The local magistrate sits in a court in the township, and his area of jurisdiction extends over Mdantsane itself, neighbouring rural areas to the north, west and south; and also a non-contiguous area around Kwelera to the east (Fig. 8). As a result rural residents in the immediate

TABLE 10: THE ATTRIBUTE FUNCTIONS OF SELECTED CISKEIAN TOWNS AND SOUTH AFRICAN NEW TOWNS

RANK	TOWN	SA Police	Magistrate	Post Office	Dist. Surgeon	Bantu Admin.	Roads Dept.	Road Motor Transport	Railway	Library	Money Order Office	Newspaper	Total No.
	i) <u>Ciskei</u>												
1	Mdantsane 3)	1	1	1	1	1	1	1	1	-	1	-	9
4	Zwelitsha 1)	1	1	1	1	1	1	1	-	-	1	-	8
5	Alice 2)	1	1	1	-	1	-	1	1	1	1	-	8
6	Keiskammahoek 2)	1	1	1	-	1	-	1	-	-	1	-	6
	ii) <u>SA New Towns</u>												
2	Vanderbijlpark 2)	1	1	1	1	-	-	1	1	1	1	-	8
3	Sasolburg 2)	1	1	1	-	1	-	1	1	1	1	-	8

Sources: 1) Cook (1977)  
 2) Cook (1969)  
 3) Own research

vicinity come to the town on official business. Justice is under the control of the Ciskeian Department of Justice.

The post office in Zone 1 provides full postal services and a limited telephone service. In April 1966 there were 261 listed subscribers amongst the 16 663 households and 194 administrative, commercial and service undertakings.

In terms of attribute functions the situation in Mdantsane is in most respects the equivalent of what could be expected in other settlements of similar size. The major lack is in terms of the library: in white South Africa even the lowest order towns usually have this facility. All South Africa's cities with over 100 000 inhabitants have their own daily newspapers except those which, like Mdantsane, are situated in close proximity to a larger city and lie to some extent within its field e.g. Germiston, Springs, Benoni and Roodepoort near Johannesburg.

#### Variate functions

The picture in respect of variate functions is less satisfactory (Table 11). The total number of functions is similar to that found in the new town of Sasolburg, less than one quarter the size of Mdantsane. But even more disturbing is the relative imbalance reflected in Table 11. Mdantsane has 3 financial institutions as against the 22 in Sasolburg, 11 professional undertakings as against 30, 10 service outlets as against 23. Indeed it is only in terms of religious and educational functions that Mdantsane appears to hold its own, and in the latter case the functional level is extremely low and caters largely for primary pupils. The most notable feature in respect of the variate functions of Mdantsane is thus not the total number

### 1.2.2

RANK	TOWN	Admin.	Other	EDUCATIONAL						FINANCIAL				PROFESSIONAL						COMMERCIAL										SOCIAL						TOTAL	POPULATION *)							
				Motor Garages	Vocat/Univ.	E. Secondary	E. Primary	N.E. Higher	N.E. Primary	Cinema	Bank Branch	Bank Agency	Bldg. Soc. Agency	Insurance Off.	Other Financial	Dentist	G.P. & Spec.	Attny/Solic.	Accnt/Auditor	Est. Agt/Auct.	Other Prof.	Butcher	Bakery	Dairy	Tea Room/Cafe	Bottle Store	Other Prov.	Gen. Dealer	Dept. Store	Produce Buyer	Wholesaler	Hardware	Speciality	Engineering	Elect./Plumber			Bldg/Carpenter	Other Services	Hotel	Bdg.House	Hospital	Clinic	Church
1	Ciskei Mdantsane <sup>3)</sup>	12	2	5	-	-	8	32	1	1	-	-	1	-	7	4	-	-	-	4	-	-	5	4	6	26	-	10	1	-	3	-	1	2	7	1	1	2	22	23	-	185	115628	
4	Zwelitsha <sup>1)</sup>	7	-	←	10	→	←	→	1	→	←	→	←	→	3	→	←	→	←	←	→	8	→	←	←	→	9	→	←	→	6	→	1	-	←	→	6	→	51	26852				
5	Alice <sup>2)</sup>	2	5	1	1	1	1	2	-	2	-	3	-	-	2	1	-	-	-	4	-	-	1	2	1	16	-	-	-	-	3	-	1	-	2	2	1	2	-	2	2	60	4752	
6	Keiskammahoek <sup>2)</sup>	1	1	-	-	-	1	1	-	-	-	1	-	-	1	1	-	-	-	3	-	-	1	-	-	10	-	-	-	1	-	-	-	1	1	-	-	-	1	1	26	2910		
SA New Towns																																												
2	Vanderbijl <sup>2)</sup>	3	8	20	4	9	1	2	3	7	-	3/13	7	2	2	11	3	2	7	10	16	2	2	17	5	23	23	-	-	2	9	50	3	6	8	49	4	2	1	4	21	1	302	41415
3	Sasolburg <sup>2)</sup>	3	4	-	2	2	1	2	2	4	2	4	10	2	3	10	5	2	4	6	6	1	2	7	2	10	19	1	-	1	6	19	1	3	2	17	1	-	2	1	10	2	181	28283

\* at the time when functions were calculated

Sources: 1) Cook (1977)

2) Cook (1969)

3) Own research.

The divisions in the provisions and general commercial sections are open to various interpretations, owing to the mixed nature of many businesses.

of functions, but the marked lack of variety reflected by the many gaps in Table 11, in all but the social sector. The positive limitations imposed by legal restraints on black entrepreneurs and the ban on white enterprise and black partnerships or companies in black townships is a deterrent to advantageous competition in the market place. Although in terms of the 1923 Natives (Urban Areas) Act blacks were theoretically entitled to trade in urban areas, the granting or refusal of trading licences was left to local authorities. In a number of cases such licenses were refused and it was only after World War II that there appears to have developed any sort of freedom to operate businesses, even in the locations. After 1948, however, it again became government policy to restrict black trading in urban areas (Davenport, 1977) and in 1963 a government decision limited trading further by imposing a rule of 'one man one shop,' prohibiting black trading in all but 'daily essential domestic necessities' and encouraging blacks to shop in central business areas (Davenport 1977). Thus virtually without exception the commercial and administrative functions of the township cater for the low order needs of the inhabitants and all other requirements have to be met by travelling, mainly to East London.

The character of the built up area of Mdantsane appears to be the logical outcome of two basic ideas held in respect of not only this particular township but black townships in South Africa in general. The first is the premise that " ... breadwinners are normally employed in the white area ..." and the second the belief that " ... most natives prefer to do their shopping in the European town ..." (Mathewson 1957, p. 30). The result is that variate functions associated with educational, social and recreational



facilities have been given a much higher priority than commercial and professional outlets. Consequently in all sectors other than the social and educational, the functional character of Mdantsane approximates that of a small country town rather than a city with over 100 000 inhabitants.

### Movement

The study of a built up area of necessity reflects the scene at a certain moment in time. However, an urban settlement is not static. It includes people who do things, who act and react and who are both continually moving themselves and generating movement in things. This movement involves a wide variety of types and levels, the most important of which include the original movement of residents to the settlement, i.e. change of abode; regular patterns of movement as people go about their daily lives; and irregular movements to or from further afield or in response to a specialized need or desire.

### Change of abode

Fourteen years ago Mdantsane was an uninhabited shell under construction. Today it houses 115 628 people. A large majority of these residents were born in the rural areas of the homelands, but an even greater proportion were already urban dwellers before the development of Mdantsane, having lived in Duncan Village before moving to the township (Table 11). This movement was particularly rapid in the early years of the township's development (Table 12) and has been limited only by a lack of housing. Since the inception of the township there have been waiting lists for houses and at present 4 000 families are on such a list (Cooper, 1977). The rapid movement of people from Duncan Village to Mdantsane is a

reflection of the main idea behind the development of the township viz. to rehouse the blacks of Duncan Village (Municipal records) and the decision to rezone this location for the use of other population groups. Despite the large-scale movement of blacks from Duncan Village to Mdantsane (reported at 75 000 people: Cooper, 1977), the idea of the disestablishment of the former is still far from being achieved. Municipal records show that the population of Duncan Village is still assessed at approximately 40 000. Clearly there may be a considerable time lag between the fulfilment of the various links of Jones' chain.

#### Regular patterns of movement

From the study of the functional character of Mdantsane it appears that there are three classes of regular movements that are based on the township and which occur on a regular basis. These are the journey to work, the journey to shop and the journey to school.

#### Journey to work

The journey to work is both the most regular movement and the one involving the most people in Mdantsane. Approximately 7 000 jobs exist in the township itself, and a further 31 140 of the inhabitants are classed as economically active (Republic of South Africa, Population Census 1970). With few exceptions these people work in East London. Matravers (1977) estimates the number of daily commuters from the township to the city at approximately 26 000. 80% (20 800) travel by bus, 15% (3 900) by train and 5% (1 300) by private car and taxi.

The cost of this trip is high both in terms of time and money. The internal and external bus services are separate, so that unless the commuter lives

within walking distance of the external bus rank at the Civic Centre, from where all buses to East London depart, it is necessary to catch two buses and to pay two fares. All internal trips, (Fig. 14), regardless of distance, cost 4c each on a subsidized ten-clip card. The internal service is almost solely a collection and delivery service centred on the depot for transfer to the external service at the Civic Centre, and it does little to satisfy the need for local transport or interaction between neighbourhoods. Whereas the internal service meets to only a limited extent the needs of the inhabitants of Mdantsane, the external service is reasonably efficient, meeting quite effectively the needs of both the employer (who subsidizes the service) and the employee (Matravers 1977). Trips from Mdantsane to East London cost R0,13 each on a subsidized card to any destination between the township and the city centre. Trips to the West Bank cost R0,01 more. Mean perceived travelling time is 68 minutes (Matravers, 1977). Clearly this time compares very unfavourably with the expectation in new towns, and even with that in most large cities (Matravers, 1977).

The bus connection with the train service is worse than that for the external bus service. The majority of the inhabitants would have to catch two buses to reach the station: one to the main rank and the second from the Civic Centre to the station. The train trip may also entail yet another bus trip at the other end. This factor coupled with the more limited flexibility of the train service (Matravers, 1977) and greater overall cost of reaching most destinations when travelling by train, also partly accounts for the lack of popularity of this mode of travel.

Private motor transport is not a viable alternative mode of travel for the journey to work as far as the majority of Mdantsane workers are concerned.

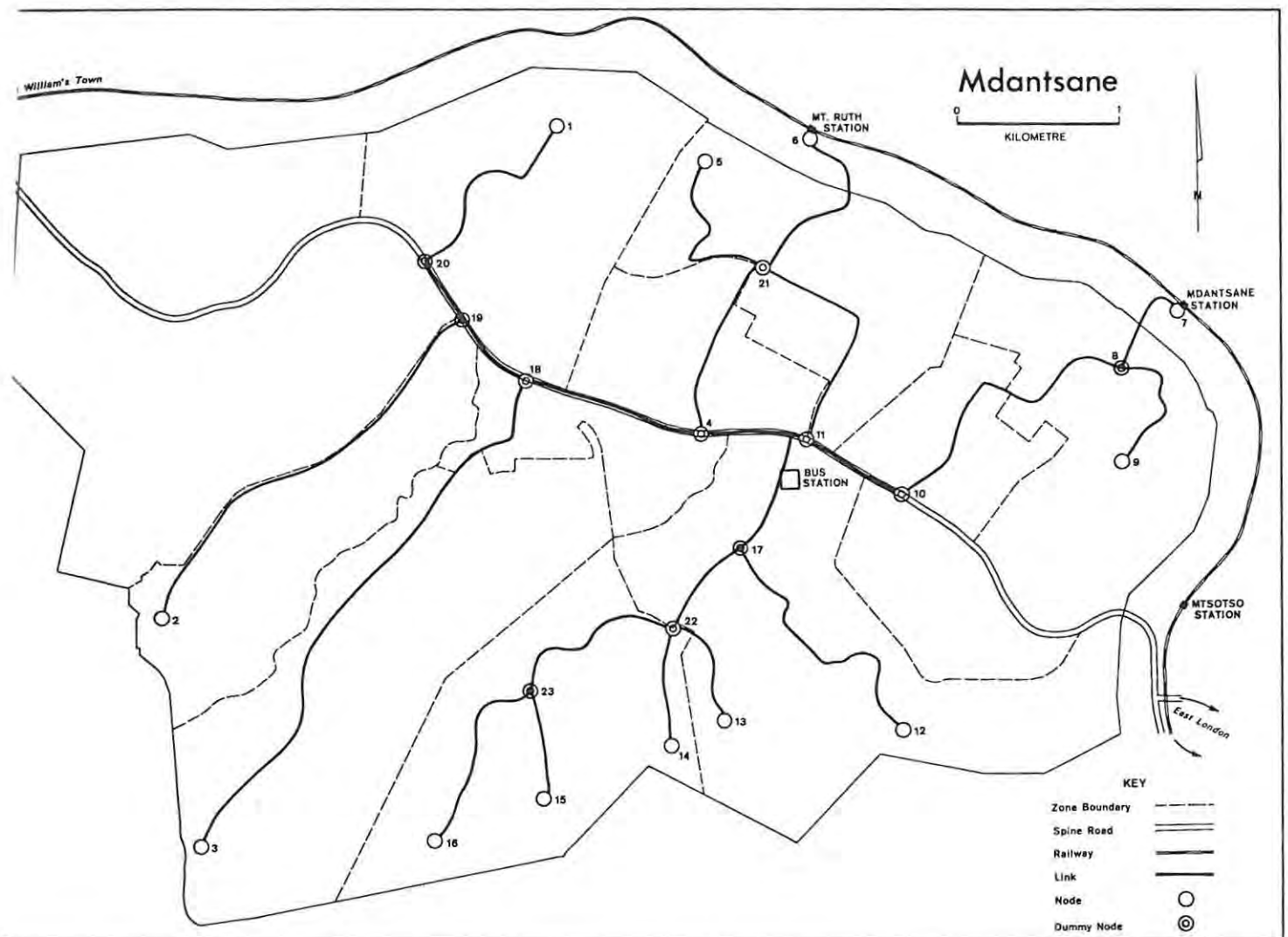


Figure 14: Mdantsane: Internal bus routes (Matravers, 1977)

Car ownership is low with only 1 321 cars registered in the township (Benbo, 1975) and employers are sensitive towards the use of cars for the journey to work, owing to attendant parking problems. There is nonetheless a small increase in the number of cars being used for the journey to work (Matravers, 1977).



### Journey to shop

Mdantsane residents are not dependent on outside shopping to the same extent that they are dependent on outside employment, as is indicated by the fact that respondents to a questionnaire in 1975 indicated that they spent 47% of their total income in the township. Decentralization of retail outlets has further slightly reduced the length of journeys to shop, but several factors militate against a strengthening of this trend. The daily focus of so large a proportion of the population on the vicinity of the Civic Centre as a result of the siting of the main bus rank there, enhances the attraction of central sites for businessmen. A number of vendors are also utilizing the situation by engaging in small scale trading in the open near the rank. However most shopping, especially for high order needs, is still done in East London where large chain stores are able to provide greater variety at lower prices and where a far wider spectrum of speciality needs is catered for. The consequence is that a large proportion of the routine shopping is combined with the journey to work.

### Journey to school

The journey to school is the only regular movement in the township which is largely localized. It is also largely pedestrian, in contrast to the other regular movements which are predominantly bus trips. The distribution of educational facilities in all zones makes this practicable, especially for primary pupils.

### Irregular patterns of movement

Those movements not related to the daily circulation patterns are of both variable frequency and distance. They include journeys to or from other



parts of the Ciskei or surrounding rural areas, but also movements within Mdantsane itself.

#### Journeys focussing on the township

Circulation within Mdantsane is severely limited by several factors. The problems associated with the internal bus service have already been mentioned and private transport is relatively rare. Distances are often great, roads bad and the terrain difficult. The township plan does not reflect any particular consideration for pedestrian traffic and consequently many friendships were broken when people moved to Mdantsane and Mayer (1971) reported loneliness as an important problem in the lives of the early inhabitants. As people have adapted to the conditions and made new friends nearby, however, the problem has diminished, and Pauw (1973) reports that it is no longer a major factor.

An anomalous situation exists in respect of activities focussed on sports facilities. Many residents experience difficulty in making full use of township amenities and considerable numbers patronize sporting fixtures and beaches in white areas. On the other hand large scale movements of people to the township take place at irregular intervals in response to the attraction of sports meetings. All Zones except 4 and 8 have either developed facilities or fields under construction within their precincts and in the case of both those zones without their own fields, facilities lie immediately adjacent to them in adjoining zones. The result is that no inhabitant is more than 1,6 km from a public sports facility of some kind, and most are much closer: e.g. in Zones 1, 2, 3, 4, 6, 7 and 9 no residence is more than 1km from a sports field of some type. However when it comes to particular facilities, for example swimming, a resident may have to walk as far as 3km or catch one

or even two buses to get to the bath. In addition to recreational and inter-club sport, international rugby matches between the representative teams of France and New Zealand on the one hand and South Africa's blacks on the other, as well as between blacks and coloureds, have attracted large crowds. Boxing tournaments involving world-ranked boxers and an inter-provincial cricket week for non-white schools have also been staged in the township. Whereas regular activities are reportedly becoming increasingly popular, generating additional movement in the previously relatively static weekend periods, it is only the major events, occurring at very irregular intervals, which have any notable attraction for outsiders. In these instances movement from the Ciskei as well as to a limited extent from surrounding white areas is focussed on Mdantsane.

The hospital in Mdantsane, as regional hospital serving the entire homeland draws both patients and students from outside the township. Apart from ordinary patients there are those referred from the hospitals at Mount Coke, Zwelitsha and St. Mathews for specialized treatment.

In addition to regular journeys to school by local pupils, a certain amount of movement from outside the township is focussed on Mdantsane for educational reasons. Officials claim that the schools serve not only Mdantsane itself; temporary residents in the town include children who come from Duncan Village, other Ciskei towns including Zwelitsha, and surrounding rural areas. Post school educational institutions provide facilities for students from throughout the Ciskei.

#### Journeys to the Ciskei

Mayer (1971) indicates that family ties are generally very strong with the

homeland, and that Mdantsane residents often spend their leave in the rural areas of the Ciskei. In a study of Mdantsane workers in East London by Daniel and Waxmonsky (1977) 72% of the Mdantsane respondents indicated that they had a country home in the homeland and 30% visited this home weekly or more often. Only 15% visited their homeland dwellings less frequently than once a year.

#### Journeys for specialized requirements

Journeys in response to specialized needs are very largely focussed on East London. The paucity of specialized outlets of almost any type within the township is clearly one of the reasons for this, but is not the only one. For example the Frere Hospital in East London on the bus route, is more accessible to many inhabitants of the township than the Mdantsane Hospital, and a large number still prefer to obtain medical attention there despite the opening of the new hospital in the township. In a sample survey in 1975 36,9% of the respondents indicated a preference for visiting doctors in East London, while 24,7% expressed preference for a clinic in the city. Convenience is the major factor in choice of doctors or hospitals, with 43% of respondents citing it as the reason for their choice. The greater proportion choosing to attend clinics in Mdantsane reflects the easier access to the local clinics as a result of their relatively wide distribution in the township.

Closed movement patterns within the township are strictly limited except in the case of numerous daily journeys to school. With factors militating against pedestrian traffic, and private vehicular movement rare, it means

that almost all local circulation is focussed through the main bus rank at the civic centre, entailing a change of vehicle and a double fare.

The regular journeys to work and shop are strongly East London orientated and though differences of opinion exist on exact numbers commuting daily, there is no doubt that the flow in both directions between township and city is heavy. (Fig. 15).

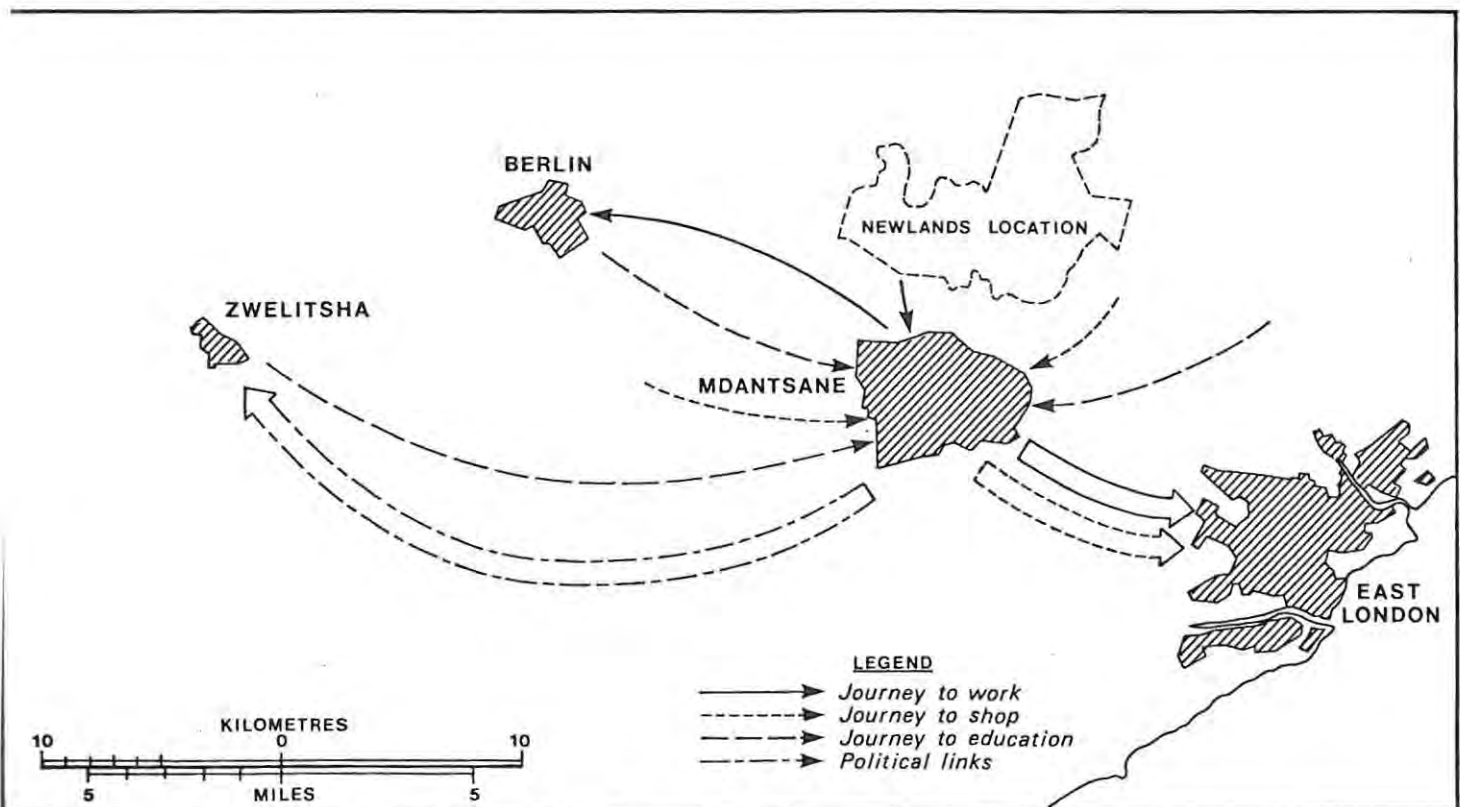


Figure 15: Links Between Mdantsane and Surrounding Areas

Certain of the irregular journeys also focus on East London, though the predominance of these journeys is not as marked as in the case of regular

trips. An important segment of the irregular journeys is channelled towards the homeland for political reasons, tertiary education, but especially family visits. However those related to professional services are almost without exception focussed on East London.

While no official figures are available, it would appear from reports that while many people leave the township at more or less regular intervals, not all non-local movement is outward. Increasingly Mdantsane is itself becoming a focus of movement and though patterns are irregular, they are particularly important in that they, with the other movements, make an important contribution towards developing the urban field by integrating the urban settlement and linking it with its hinterland.

#### Urban field

The movements referred to in the previous section link the urban settlement economically and socially with a surrounding area. This area, the sphere of influence or tributary area, extends beyond the boundary of the built up area to include various places outside the township. But it does not exclude the built up area, as the whole the urban field can be a tightly integrated system. A variety of methods has been used to define the sphere of influence. Many of these are laborious, subjective or selective. For these reasons the urban field is perhaps best described in terms of Chapin's (1964) 'activity systems.' These activity systems involve both land use and movement, i.e. the relative locations of activities, the channels that link them, and the flows that occur in the course thereof. There is a threefold division of these activities into those of routine nature, those focussing on certain institutions and those relating to the organization of process.



### Routine activities

It is these activities which normally play a centripetal role, integrating the urban system and binding the field together. They occur on a regular basis and have place of residence as point of origin and termination.

Whereas routine activities normally integrate the field, they do so only to a very limited extent in the case of Mdantsane. Journeys to school focus on the township itself, binding different parts within the built-up area together and to a lesser extent forging links with surrounding areas but in the case of journey to work and journey to shop the links are centrifugal, attached to outside areas, particularly East London. This situation is the consequence of the lack of facilities, services and opportunities in Mdantsane and the resultant attraction of East London. It leads to a marked dichotomy between place of residence and place of work and shopping. A city in the true sense, with its wide variety of functions attracts people from its field for shopping and working, entertainment and specialized services. A settlement which provides work opportunities for most of its inhabitants and may even attract a limited number of workers from elsewhere, but which remains reliant on a city for many of its needs, especially those of higher order, may be regarded as a satellite. A settlement which can neither provide work for its inhabitants nor meet their everyday needs cannot develop a cohesive integrated character. If it is linked by routine activities on a regular basis to some other settlement, it must be regarded not as an entity unto itself, but as a suburb of its mentor. Until such time as a greater proportion of the routine activities of Mdantsane residents become focussed on the township rather than on East London, therefore, the settlement cannot become a true city, however large its built up area or population may become.

### Institutionalized activities

A similar dichotomy exists concerning institutionalized activities in Mdantsane. Retail trade is entirely locally orientated, with shopkeepers estimating that 98,5% of their regular customers are township residents (1976 survey). Wholesale trade in contrast focusses on East London. Social and health services on the other hand are generally Ciskei orientated. Control thereof is by Zwelitsha and the institutions serve the needs of the homeland. Administration is ostensibly also in the hands of the Ciskei, but the tasks and duties the Administrators perform and the rights and frame of reference within which they work all devolve from the Minister of Bantu Administration and Development. The enforcement arm of the law is South African but the justice department Ciskeian. Roads within Mdantsane are the responsibility of the Ciskei Department of Works, but in order to travel to work or shop or even to visit the Ciskeian capital, use is made of South African roads. With as divergent and fragmented a system as that described above it is unlikely that Mdantsane can develop a field at all. Links are too sporadic and diverse, and until links are forged which strengthen the economic base of the township, and activities engendered which bind rather than tear apart the settlement, little development towards a truly urban character for the township can take place.

### Organization of process

In the organizational sphere there appears on the surface to be greater unity of approach. The organization of the political area is vested almost entirely in the Ciskei government. Urban management is by elected representatives from the township with nominated Ciskeians representing the government. National political rights exist

only in respect of the Ciskei. However, until total independence is achieved the Ciskei government will remain answerable to the South African government so that fundamentally, control devolves from South Africa.

#### Achievement

The simple idea of a 'better environment' for urban blacks has great ramifications in South Africa, largely because it cannot be divorced from other ideas. The related concepts of financing development, providing services, developing transport and moving people raise enormous problems on their own. When conflicting ideas such as removal from the central city, limitations on black entrepreneurship, security prescriptions and political ideology are introduced the entire undertaking becomes one of such complexity that the emergence of a single overriding pattern is impossible.

The built form reflects clearly white ideas on what the township should be: officials readily admit that there was no consultation with blacks at the planning stage. Consequently Mdantsane is not a complete city. There is strong daily movement to East London for commercial requirements and employment, and a wide variety of administrative, social, service and recreational needs of the inhabitants of Mdantsane are met in the adjacent white city. The lack of basic functions in the township has prevented the development of a relevant urban field in terms of any activity system: routine, institutionalized or organizational.

If Mdantsane is not a city, can it be classified as a satellite? Clearly in terms of Victor Jones' (1963) definition of the concept, the answer is no. But Jones used only one criterion in his definition, viz. the ratio of employment to residence. Clearly under present circumstances Mdantsane

will never meet his criterion, but in terms of almost every feature except employment and shopping the idea seems to contemplate a large measure of independence, much more than is common in a suburb. The progress in this direction should not be overlooked. If Rome was not built in a day, perhaps it also takes time to produce a satellite from a virgin site. One can then accept that Mdantsane is a satellite-in-making.

It has been suggested repeatedly that the Mdantsane idea is one of an 'independent city.' Does the fact that this has not been achieved prove the invalidity of Jones' (1954) idea-area chain which formed the basis of the first hypothesis? Again the answer is no. Though independent city status has been an expressed aim, all decisions and related political movements or actions have reflected a less ambitious idea. One can thus assume that the covert concept was the real one, and Mdantsane is a very clear reflection of it. Though the links in the chain appear tenuous at times, there is a connecting thread which can be followed along the course mapped out by Jones, and which lends strong support to his theory.

The second hypothesis concerns differences and similarities between Mdantsane and new towns. Certainly the differences exist. The socio-political circumstances of the origin of the township are unique to South Africa. Form and function, marked by a similarly unique uniformity, social imbalance and functional paucity are the antithesis of all that new towns stand for. The neighbourhood concept exists to a limited extent, but finance, lack of mobility and the limited attraction of most functions militate against it developing to full maturity. It is thus only in terms of age that Mdantsane is a new town. To what extent this can, or is likely to change in response to new ideas is examined in Part III:

PART III

CHANGING PERSPECTIVES

CHAPTER 6 NEW DEVELOPMENTS

CONCLUSION



CHAPTER 6NEW DEVELOPMENTS

Mdantsane has now been in existence for fourteen years, and in that time political thought in South Africa has undergone certain changes and further development of ideas has taken place. Repeated reference has been made to the ideas and decisions on which the township was originally based, and while the ideas current in years past have left their mark on the political area, it must be borne in mind that some of these early ideas are amongst those that have changed and that new ideas have emerged. The changes are not necessarily drastic or dramatic and in many cases they represent a change of emphasis rather than a change of philosophy, an alteration in direction rather than an about face.

One of the most far-reaching political ideas in South Africa's history was the concept of independence for the country's black homelands. It was first officially mentioned in 1959 when Mdantsane was being planned and the concept has been expanded and broadened by a number of political decisions since. As far as the present study is concerned, one of the major consequences of the new idea was the decision mentioned earlier to give priority to the building of homes in black homelands and an enforced cut-back on municipal housing (Davenport, 1977). Apparently in response to the latter decision there arose the idea of Mdantsane as a homeland township rather than municipal location and it was at this stage of the development of the township that the alterations to plans for Mdantsane, referred to in Chapter 4, were made; and it was the ideas discussed in that chapter which together with the original, socially-based concepts, gave Mdantsane its basic character.

But any changes to the early ideas, as well as new ideas born out of new thoughts, new conditions or new situations should, in terms of the unified field theory, eventually also influence the political area. The rest of this study seeks to isolate these new ideas, new decisions and new directions; to examine their effects to date; and to postulate about their role and influence in future developments. In particular those which arose after the first residents moved into Mdantsane in 1963 are stressed.

#### New ideas, new decisions and related movements

On 21 March 1961 the Ciskeian Territorial Authority, the final governmental tier envisaged by the 1951 Bantu Authorities Act, was inaugurated. However, this did not in practice prove to be the end of the political road for the homeland, as on 20 September 1965 the Territorial Authority was granted greater powers of self-government in terms of the 1959 Promotion of Bantu Self-government Act. In 1971 the Bantu Homelands Constitution Act was tabled, and in an Explanatory Memorandum issued with the Bill the Government affirmed that it was its firm and irrevocable intention to lead each individual Bantu nation to self-government and ultimate independence. The Bill was passed, and on 1 June 1971 the Ciskeian Territorial Authority was superseded by the Ciskeian Legislative Assembly and on 1 August 1972 the homeland became a self-governing territory within South Africa (Proclamation R 187 of 1972). The way was thus cleared for the Ciskei to embark upon the road towards political independence. Change was not limited to the political sphere, however, and the implementation of these ideas and decisions brought about noticeable, albeit relatively minor, physical movements and resultant changes in geographic patterns, fields and ultimately also political areas.

### Movement to the township

An important alteration in movement patterns to Mdantsane was occasioned by the delimitation of the boundaries of the Ciskei in such a way as to include the township within the homeland. Whereas the idea of a new municipal location envisaged merely the rehousing of local blacks in what was in effect a new suburb of East London, the concept of a homeland township theoretically embraces all members of the ethnic group concerned, and aims to provide a distinct and independent central place. The immediate practical effect of this political decision was that Ciskeian citizens displaced from white areas became eligible for transfer to Mdantsane. On 29 August 1962, for example, it was announced by the then Secretary of the Department of Bantu Administration and Development that approximately ten thousand families from the Western Cape would be resettled in Mdantsane. (Daily Dispatch, 31 August 1962). In addition, any other Ciskeian citizen is free to apply for a house in the township. At present approximately 15% of new houses in Mdantsane are being allocated to persons not previously resident in East London and the result is an annual influx of some 1 500 people who would not have been eligible for housing in the township but for the emergence of the homelands' idea. A further (very limited) group of people is being resettled in Mdantsane from outside the homeland at the express request of the South African Government. In most cases they have been guilty of statutory offences in the Republic and in all cases they are Ciskeian citizens. Again, movement to Mdantsane is only possible in terms of the homelands' concept.

The movement of people to Mdantsane from rural areas has furthermore had an important effect on population characteristics not related to growth. An influx of inhabitants from rural areas in the homeland or further afield

could conceivably, in the short term in particular, influence ties maintained with other parts of the country, and lower the overall educational levels in the township.

Generally it is the younger worker who is being attracted by employment opportunities in the industries of East London (Daniel and Waxmonsky, 1977), with the result that an increase in population fertility and number of births can be expected. Political ideas related to the homelands' concept have also led to an improvement in the sex ratio in Mdantsane relative to the locations it is replacing. Whereas the locations were meant for the work force alone, and non-productive elements could be endorsed out by the local authorities, a statement by the Secretary of the Department of Bantu Administration and Development in June 1969 confirmed that when a town is situated in the vicinity of a homeland, the Africans employed in such a town should be accommodated on a family basis in a Bantu township in the homeland itself (Horrell, 1972). The houses of Mdantsane are thus meant for occupation by the worker with his dependents: e.g. wife, unmarried children, aged parents etc. (Mayer 1971), and a more normal age-sex ratio should eventually emerge. At present there is a preponderance of young people as a result of both selective in-migration in terms of age and a high rate of natural increase (Daniel and Waxmonsky, 1977).

Though Chapter 5 indicates that almost all inward trips to Mdantsane are undertaken by returning commuters there is a growing movement to the townships from the surroundings - both the local immediate hinterland and from the Ciskei as a whole. This movement suggests a slight strengthening of central place ties with the surrounding urban field and the presence of a

functional attraction not commonly found in suburbs. Education appears to be the most important city-forming activity as in addition to the ordinary schools there is the relatively large range of post-school educational institutions which are not found elsewhere in the Ciskei. The result is that an increasing number of Ciskeians are becoming Mdantsane residents for a period of time, and though this segment of the population is highly mobile in terms of individuals, the numbers are likely to remain more or less constant. There is presumably a related inflow of funds, generation of employment and increase in local expenditure. Similar links are based upon the functions of the hospitals, magistrate's court and the bus service, with a limited number of commuters from Newlands making use of the latter. The potential exists for the sporting facilities to generate a further inflow; but major sporting functions are at present too few for any regular pattern of movement to emerge.

Officials suggest that visits to the township from various parts of the Ciskei are a common occurrence, and that shopping trips to East London during which the visitors stay in Mdantsane, are especially popular with rural Ciskeians. The result is an unusual inward flow of people to Mdantsane based on the functional attraction of East London rather than that of the township itself but possible only as a result of the homeland status of Mdantsane. Such visits to urban areas in most parts of South Africa are not easy for black visitors. On the other hand, black visitors to a homeland town are legally entitled to spend thirty days there, and officials in Mdantsane claim that even this limit is waived unless complaints are lodged about visitors. Black residents deny that these concessions exist and hold that constraints are applied as in any township.



However, whether the 'visitors' are in Mdantsane with the blessing of the authorities or not, the possibility exists for interaction between the township and the homeland and to an increasing degree inward flow is taking place. Consequently the official population is at any particular time swelled considerably by those paying visits of varying duration.

#### Movement from the township

There is little evidence of any regular pattern of movement from Mdantsane to the Ciskei, so that links consist largely of limited trips of variable frequency. Among these are visits to country homes, attendance at Fort Hare University, which takes 96,4% of all Ciskeian students (Benbo, 1975), and political links with Zwelitsha. Ironically almost all contact between Mdantsane and other parts of the Ciskei entails travel through non-Ciskeian territory or making use of the South African communications network.

Other outward movement is almost entirely focussed on East London, but in the light of the Department of Bantu Administration and Development idea that Mdantsane "... would grow as an independent town ..." (East London Municipal Records), as suggested at a meeting between the Department and the East London Municipality in August 1962, it may be expected that extra-urban journeys to work should be systematically reduced by the increasing introduction of commercial, industrial and recreational facilities and work opportunities in Mdantsane itself. In the process, the typically suburban characteristics of the settlement should diminish and a satellite emerge more strongly. Such expectation was given added credence in 1962 by the attitude of the Department of Bantu Administration and Development. At that time, when the East London Municipality requested the establishment of industries in the city to absorb the expected influx of potential em-

ployees from the Western Cape, the Deputy Secretary of the Department indicated that these workers would not be settled in East London, but in Mdantsane, which was in a homeland and that East London would thus 'not be affected' by their arrival (Daily Dispatch, 31 August 1962).

Balk (1977) indicates that progress is being made towards self-containment within Mdantsane and that industrial development is envisaged and employment opportunities are increasingly being created in the township.

Despite these claims, however, relatively little has materialised in the way of either industry or employment in the township to date, and conflicting statements from various official sources raise the question as to what the intention of the authorities really is. At the August 1962 meeting between the Department of Bantu Administration and Development and the East London Municipality referred to earlier, it was stated that the *raison d'être* of Mdantsane was the housing of East London's labour needs. Officials claim that the economic independence of Mdantsane from East London has not been their aim in the past. This point of view appears to be supported by the Department of Information (Bantu, June, 1974) which pleads for "... the development of urban centres in the Homelands where the population may enjoy modern trading facilities, medical and hospital services, educational and recreational facilities," while it does not even mention employment facilities. Indeed, it suggests that in terms of employment Mdantsane enjoys a particularly favourable situation with regard to the growing border industries situated outside the township. Bantu (May, 1976) notes that employment opportunities exist on the doorstep of the town in East London and Berlin. The Department of Bantu Administration and Development regards the economic development potential of that part of the Ciskei in which Mdantsane is situated, as

'poor' (unpublished map).

If the intentions of the various authorities are uncertain, the realities of the situation are not. A municipal traffic count in May 1974 ascertained that 2 498 vehicles per day travel from Mdantsane to East London. Benbo (1975) holds that this flow represents 46 923 daily commuters, and the officials of the Department of Bantu Administration and Development do not foresee that even an international boundary across the route thereof will in any way act as a barrier to this movement. It would thus appear that it is widely assumed that the inhabitants of Mdantsane will, by and large, remain economically dependent on East London, continuing to sell their services in the city.

If Mdantsane is to become a city in the true sense of the word, then the movement of people and moneys outwards from the township should be restricted to those concerned with higher order goods and services than could be expected to be obtained locally. Competition from national chain stores in the sphere of everyday needs and the diversified CBD of East London as far as high order needs are concerned are amongst the major difficulties to be faced by shopkeepers in Mdantsane, but even if all Mdantsane residents were to concentrate their spending within the township, the relatively limited buying power of black consumers which has resulted from the average income differential between blacks and whites would have a stultifying effect on commercial growth. Economic problems have placed further limits on the development of the black business sector in the township, and although the foundation of the Bantu Investment Corporation (BIC) in 1959 was intended to help prospective black entrepreneurs overcome their financial difficulties, loans were not

easy to come by. The Corporation has provided 110 loans to Mdantsane residents, but has reportedly turned down 84% of all loan applications received in the first twelve years of its existence (Sunday Tribune, 9 July 1972). In addition interest rates (9½% p.a.) are regarded by borrowers as high, though in Mdantsane a rebate of 2½% is allowed to those borrowers who are regular in their repayments.

Legal stumbling blocks to black commercial development include the fact that normally no person, company or syndicate may occupy more than one business site, and an effective ban exists on partnerships. In addition, Government Corporations have generally retained wholesale rights for themselves. Consequently, despite the homelands' idea and the concept of a self-contained city, the commercial sector in Mdantsane is at present grossly under supplied and inadequate for a city of 115 000 inhabitants. In part this lack can be related to government ideas and policies which have developed over the years.

The picture is nevertheless not entirely negative. There has been some proliferation of trading outlets and in the 1975 economic survey, the respondents indicated that in the case of Mdantsane residents, about 47% of all spending took place in the township. There has furthermore in 1977 been a lifting of certain restrictions on black businessmen in locations and 'Bantu villages'. The Second Bantu Laws Amendment Act of 1977 enables associations of blacks and juristic persons of whom all the members or shareholders are blacks to acquire business rights in their own areas, and allows general dealers to sell Bantu beer and Bantu beer powder (Act No. 115, 29 July 1977). Black town councils handle the allocation of sites to businessmen in the townships, and there is the

promise of greater opportunity to come.

The extent of this 'greater opportunity' is at present unknown, but until such time as the commercial sector of Mdantsane can provide for the reasonable needs of all its inhabitants and achieve some measure of economic self-sufficiency it cannot lay claim to city status.

#### The developing field

The conflicting ideas and ambiguous status of Mdantsane referred to earlier have resulted in an anomalous situation arising in respect of the relationship between East London and Mdantsane. Black locations serving the urban settlements of South Africa have always been to a large degree separate physical entities, but politically and administratively they have belonged to the relevant town or city. As these locations were developed by urban authorities for their own account, and the municipalities concerned were entitled to levy charges for services provided or rendered, the result was that the locations were in some cases profitable ventures, e.g. in East London during the early part of this century.

In the case of Mdantsane, however, a different picture is emerging, as a result of the decision to proclaim the settlement a homeland township rather than an urban location. In a situation somewhat akin to that which exists between twin cities, Mdantsane and East London are in certain spheres developing and acting entirely separately from each other, despite their proximity. There are no official links at any level whatsoever between the East London City Council and the Mdantsane Town Council; no joint projects have been tackled; the last three overseas rugby touring teams have duplicated their visits to the two centres 'as though they are



a hundred miles apart'; and except on these occasions and at the official opening of the swimming pool, when selected groups of whites were invited to attend, there has been no common use of the facilities of Mdantsane. Indeed, citizens of East London require a permit to enter the township and the citizens of Mdantsane require special permission to reside on the premises of their employers in East London. Legally and politically the East London Municipality has no control over Mdantsane, and East London ratepayers do not subscribe to the development of the township. In turn, of course, the city derives no direct income from Mdantsane. And yet the township has been built by the East London Municipality to the account of the South African Bantu Trust. Of the new housing in Mdantsane 85% is allocated to the East London Municipality for the rehousing of the residents of Duncan Village and 83% of the economically active inhabitants of Mdantsane work within the East London Municipal Area. Many of them shop in the city, watch sport in the city, obtain medical attention in the city: and yet they make no direct contribution to, or have any say in, the financial or political running of the city.

It is clear that economically East London and Mdantsane are closely inter-dependent. East London could not function without the manpower of Mdantsane, and the township would be similarly hard-pressed to survive without the employment opportunities and services of the city. Yet the homelands' concept in particular, and government segregationist policies in general, have extended and enforced separation in all spheres, but especially politically, with the result that the de jure situation directly contradicts the de facto one. While certain important links with the homeland undoubtedly exist, it appears that with the exception of the politico-administrative links with the capital and the movement of a relatively small percentage of Ciskeians to the

township, few movements are directly attributable to the homelands' policy or the concept of an independent Ciskei. Ties with rural homes would have been maintained regardless of the existence or otherwise of the Ciskei. Mdantsane falls naturally into the tributary area of Fort Hare, its nearest black university and only possible choice for virtually all prospective students in the light of legal restraints placed on admission of blacks to white universities in 1962. It thus appears that ties exist with the Ciskei, but not because of the Ciskei. Whether the realities of independence will change this, effecting new movements, welding new ties and severing old relationships must at this stage remain conjecture.

#### A new political area

A factor which could conceivably play a major role in future relationships between Mdantsane and East London on the one hand, and the township and the Ciskei on the other, has arisen with the tacit agreement of the Ciskeian Government that it may at some time in the future accept political independence based on the ideas and policies of the South African Government. This would result in an international boundary between East London and Mdantsane, the effects of which could be far-reaching. However, any reasoned prediction about the consequences of such a boundary needs to consider the type of boundary envisaged, should the Ciskei in fact become independent. Whereas boundaries clearly " ... separate the sovereignty of one state from that of its neighbours ..." (Pounds, 1963, p. 56) and undeniably separate people (Van Valkenburg and Stotz, 1954) it must be conceded that all boundaries do not do so equally rigidly and in fact some very clearly delimited and demarcated boundaries do not seriously disrupt contact between the people on either side at all. Discussions with

officials and the example of the Transkei boundary indicate that the envisaged South African/Ciskeian boundary is likely to be extremely weak.

Nevertheless, even in the case of a weak boundary some disruption of social and economic processes can be expected to occur (Muir, 1975) and such disruption is likely to be most marked on the economic field. Brigham (1919) suggests that boundaries drawn in respect of the principle of national self-determination, as in the case of the Ciskei, are in particular economically disruptive. In addition border locations are not normally attractive to industrialists (Muir, 1975), and this is borne out by the difficulties being experienced in attracting industry to the study area, and the belief of the Department of Bantu Administration and Development that its industrial development potential is poor.

In certain exceptional cases, however, industry can be attracted to a border situation. Lösch (1954) quotes examples of Swiss firms establishing their enterprises on the German side of the boundary in order to have customs-free access to German markets and American motor enterprises located at Windsor, Canada, just across the boundary from Detroit to enjoy access to Commonwealth preferences. In circumstances more closely approximating the situation prevailing in the sphere of the present study, Mercedes Benz has located a factory within a few kilometres of the Alsatian boundary expressly in order to recruit Alsatian labour, and daily communication across the Franco-German border is widespread (Muir, 1975). Provided that such movement does not arouse the animosity of the people or incur the displeasure of governments it can be to the advantage of both states. In the example just quoted the commuting frontaliers can earn up to 50% more for their work in Germany, and the labour-deficient border towns of that country are able to meet their manpower needs.

Just such a situation could arise in the case of the Ciskei to the mutual benefit (short term at least) of both nations.

Thus it appears that if the strength of the boundary between South Africa and the Ciskei is not changed even though its status should alter from intra- to international, little disruption is likely to occur in any spheres. On the other hand, however, if the divide should become a 'critical' boundary, i.e. a political, ideological or economic divide across which interaction is resisted, only damage can result to the social, political and economic environment of the entire field. The critical feature which, it appears, will influence the course of events, is the political idea in the minds of the people. If the boundary between East London and Mdantsane is perceived as being a strong one by the people it divides, the central place functions of East London should be diminished, with a resultant economic decline in the life of the city. Not only would such a situation mean the severing from East London of the buying power (albeit at present relatively limited) of 115 000 people from the township and a further (uncertain) number from elsewhere in the Ciskei, but it would also result in the loss of a major segment of the city's labour force. The consequent stagnation or even decline in the economic activities of the city which developed on the basis of these links is not difficult to imagine. An attempt has been made to represent schematically in Fig. 16 a possible outcome. Mdantsane would be in a position to capture the trade of East London in the area excluded from the city's zone of influence by the boundary, and should expand accordingly while East London shrinks. There is an important proviso however. Mdantsane must have or rapidly develop the infra-structure to cope with the demands of the expanded field and provide for the needs of the residents in the area.



The dichotomous situation which exists in the political and economic fields in the study area is the consequence of white political ideas translated into reality by white political decisions. Yet the resultant political area also reflects to some extent the sentiment of the inhabitants of Mdantsane. Total independence for the Ciskei is not a particularly popular idea (possibly because of the economic situation) but nor is it rejected outright. In the 1975 general survey 24% of the respondents favoured independence as against the 38% who opposed it. However sufficient respondents to alter the balance were either undecided or not prepared to commit themselves. In respect of some form of separate identity stopping short of full independence a similar picture emerges, with South African citizenship and Ciskeian and tribal affiliations rated equally important by the respondents.

Despite some opposition from Mdantsane residents reflected in the survey, there is sufficient support for the concept of independence for the Ciskei, especially within the territory's government, to make it highly likely that the Ciskei will become politically independent from South Africa and that East London and Mdantsane will be separated by an international boundary. Such a development will add yet another paradox to the political area that already displays so many, especially if the boundary is politically strong. On the other hand it seems reasonable to assume that both the ideas and the needs of the people of the area will ensure that such a boundary will be weak in economic terms. In that case Mdantsane will remain a dormitory of East London and development will continue along the lines generated by the political ideas of the past two decades, with no marked deviation caused by the changing emphasis of the past five years. The effects of such a development on the Ciskei as a whole are beyond the scope of this



investigation. From the point of view of the whites, though, the idea of a politically independent but economically inter-dependent township is beneficial and was embodied in the final plans for the township. But for the (in practice) minor alterations in concept referred to in the present chapter there have been no meaningful changes in approach despite increasing Ciskei nationalism, and no really different political ideas have developed among those with the power to affect the course of Mdantsane's development. There should thus also be no really significant changes in the characteristics of the political area of Mdantsane within the immediately foreseeable future.

The foregoing chapters have taken what has often been a critical look at ideas and decisions and the implementation thereof in the political area of Mdantsane as it has arisen to date. While there are clearly many shortcomings, development is not yet so far advanced that the introduction of some relatively minor alterations to the ideas could not produce the sought-after 'environment conducive to a full life.' Indeed, simply the fulfilment of existing ideas would go a long way towards doing so: the basis therefore already exists.

Clearly there is an urgent need to match the map and reality. Too often what is shown as a park or recreational area (Fig. 12) is simply uncleared bush. Many shopping centres are at present undeveloped lots, the industrial sites are largely bare and roads, residential erven and sidewalks are unkempt. Large scale development of the commercial and professional sector is necessary, reflecting an improvement in both quantity and variety of outlets. This will obviously require the scrapping of current restrictive legislation on black business development. The economic base of the township needs strengthening

and the provision of at least 400% more job opportunities within the township is an urgent need. This will demand an imaginative campaign to attract industry and is likely to entail one of the few changes to the basic plan considered necessary: i.e. an increase in industrial land. Effective utilization of facilities demands as a high priority the replacement of the present transport system with one serving the needs of Mdantsane rather than East London.

Little of the above does not already have an idea-base and the need is largely financial rather than conceptual, the lack the result of omission rather than error. But urgent reconsideration appears necessary in one field, viz. that of public housing. March and Martin (1972) hold that a structure in the middle of a building lot, i.e. what they term a tower, results in highly ineffective land utilization. Building on the premise that in the Fresnel diagram (Fig. 17) the area of the successive annular rings is equal, they suggest that structures be erected on the perimeter of building blocks to form the antiform of a tower, viz. a court. It would appear that housing along these lines, enclosing a communal open space would not be in conflict with traditional black thought and land tenure systems based on 'kraals', and at the same time would introduce a modern, effective and imaginative solution to the drab uniformity which has become such a stifling characteristic of the residential areas in black townships.

If the foregoing descriptions, criticisms and suggestions have aided comprehension and provided fresh insights this study will have achieved its main aim. If it has induced new ideas on what can be done to fulfil the overt objective of Mdantsane it will have served a far nobler end.

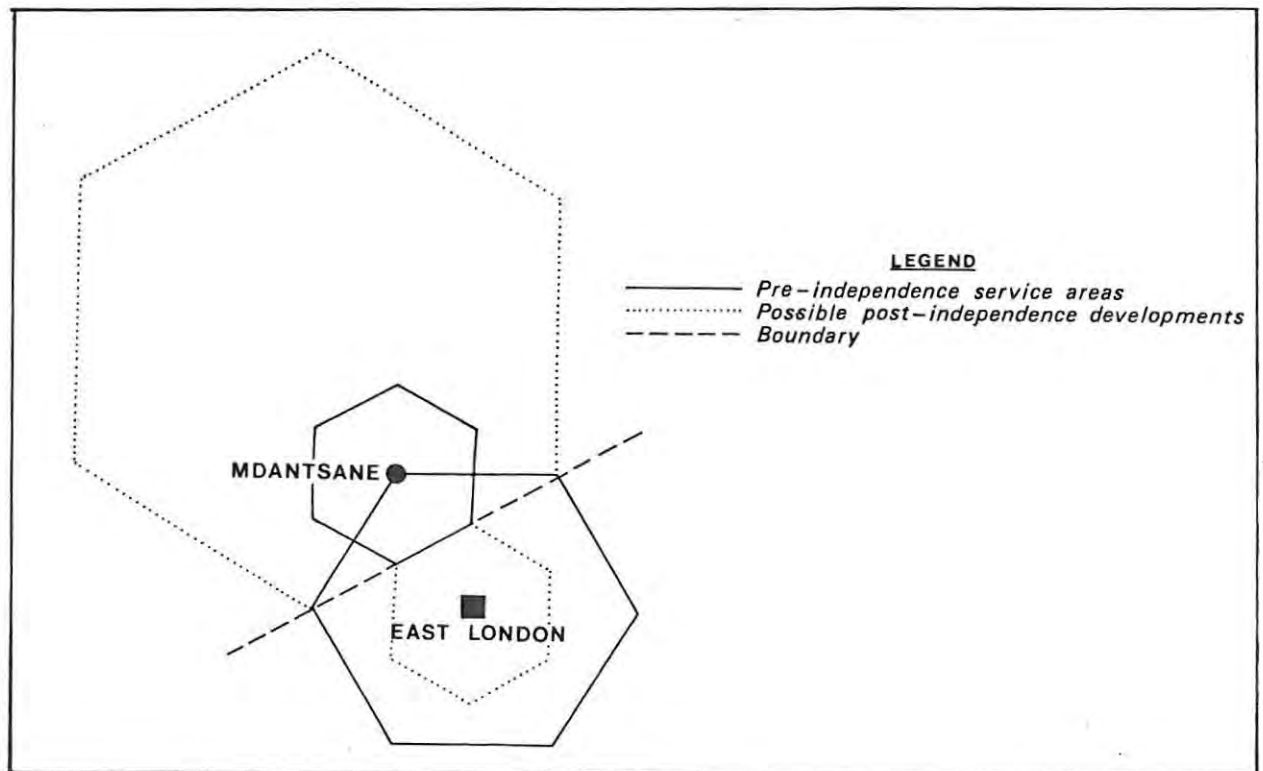


Figure 16: Alteration of a Service Area in Response to an International Boundary

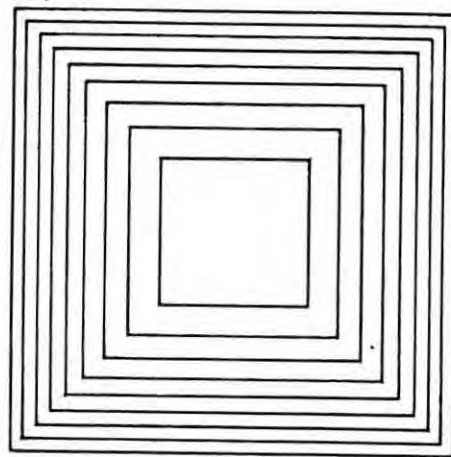


Figure 17: The Fresnel Diagram (Martin and March, 1972)

## CONCLUSION

This study has attempted to clarify the ideas and ideals, hopes and fears which were the forerunners of Mdantsane: and also to describe the concrete form, the ties and the links which have arisen as a result thereof. While the basis of its foundation lay largely in social need, the development of Mdantsane became inextricably linked with politics. Political decisions govern who may live in the township, political decisions influence the siting of industries and a political decision changed Mdantsane from a black dormitory suburb of a white city to a black township in a homeland on its path to independence. The result was that conflicting hopes and concepts were moulded into the plans for the township and a political area reflecting these conflicts has emerged. The new settlement is a city in size, but 42% of the inhabitants leave it daily to fulfil their needs and offer their services elsewhere. The number of functions performed by the township is roughly equivalent to that of a South African country town of about one tenth the size, but the variety in the commercial and professional fields barely matches that of a small village. The number of educational institutions is similar to what one would expect to find in a similar sized white town, but the division into primary and secondary schools is strongly atypical. Socially the township is in many respects an important place in the Ciskei, but economically it has very little direct significance. This then is Mdantsane: something of a giant in terms of population, but a dwarf in respect of commerce and industry; a political city, but an economic suburb; a great improvement on what it replaces, but an anomaly as a political area.

Is this paradox amongst urban settlements in fact a reflection of political ideas? One may consider the overt idea of creating a complete city, to provide for all the facilities usually found in urban settlements; and one may dispute that Mdantsane reflects it. Even the idea that Mdantsane is a magnet drawing blacks away from East London is open to challenge. On the other hand the existence of the new township as a separate physical entity is clearly the consequence of deep-seated political ideas in South African society. Its situation reflects both political ideas in the broader sense (e.g. the availability of transport, the need for urban renewal) and in the narrower party political sense (e.g. the segregation of races, location within a homeland). Similarly the role of both planning principles and political prescriptions are visible in the street plan. The buildings reflect not only the idea of the homogeneity of the black population and the wish to build as quickly and cheaply as was compatible with standard requirements and a desire for uniformity and orderliness on the part of the authorities, but also many relevant aspects of the new towns concept. Town plan displays a basic similarity with those of new towns elsewhere, a neighbourhood based structure is evident and dispersal of facilities throughout the urban area is another feature: all basic tenets of the new towns concept to be found in all four countries examined in this study. The existing situation in regard to industrial and commercial enterprises, though partly the consequence of economic factors in the black sector of the population, cannot be divorced from political constraints on the black entrepreneurs or the basic belief, expressed by the Minister of the Department of Bantu Administration and Development, in what he called an interdependent independence (Hansard 17, 1968). The resultant dependence of Mdantsane on East London approaches more closely the American concept of a satellite than the



British idea of self-sufficiency. The basically single economic group housing of Mdantsane is in direct contrast to the British and Israeli attempts to achieve a balance, but a more or less comparable situation is again to be found in the United States, where new towns for the aged, new towns for the middle class and even new towns for blacks have emerged. It may be significant that the paucity of economic development in Mdantsane most closely resembles that found in low order Israeli towns which, like Mdantsane, are largely politically motivated (though the Israeli examples are much smaller). Thus virtually every characteristic of the township that has emerged can be directly related to some or other political idea held before or during its development, but especially at the planning stage, and each can be traced through the related basins of activity suggested by Jones to culminate in the political area as it exists today. In one respect Mdantsane is unique - no other town displays such a marked difference in potential political status on the one hand and economic, commercial, industrial and professional status on the other. This aspect is closely related to the emergence of the homelands' idea of the South African government and its dominant theme of political independence without (necessarily) independence in any other sphere. As the idea of independence is so exclusively politically and theoretically orientated, and the reality of any urban settlement so strongly socially and economically orientated, there is little reflection of purely political concepts in the concrete form: i.e. when ideas relate solely to the political sphere, resultant decisions affect only the political realm, movements are of largely political significance and the concrete socio-economic city which is the visible fabric of the urban settlement is hardly influenced in any directly visible manner. Little change is thus expected in the totality of the geographical city of

Mdantsane as a consequence of the possible independence of the Ciskei.

Finally, to what extent have the methods and approaches used in this study proved relevant, valid or valuable? Throughout, the approach has been mainly descriptive for two reasons. Prescott (1972) holds that political geographers have a duty to describe areal patterns resulting from reciprocal relations between politics and geography; and it is hoped that in this way a clearer picture of Mdantsane has emerged than would have been the case if any other approach had been followed.

Certain difficulties have been encountered in the course of the study. Data are lacking in many spheres and are often difficult to obtain when they do exist. Comparative census figures are not available, as Mdantsane was not yet a reality at the time of the 1960 census. Collection of data is hampered by the sensitivity surrounding interracial comparison in South Africa and the consequent reluctance of certain officials to provide information. Furthermore, many of the residents appear to regard questionnaires with suspicion and there was a surprising reluctance on the part of some sectors of the population to provide answers to certain questions. Ideas are not as easy to establish as facts and they cannot be measured or quantified. Differences often occur between official and overt claims and actual but covert ideas. Many intentions, though genuine, are not put into practice for financial reasons. Certain features are intended, planned and shown on maps, but have not yet materialized in concrete form and the standards to which a settlement is planned are not necessarily equalled by those to which it is built.

The study itself is furthermore unusual in that it approaches an urban settlement to a large degree from the point of view of political geography rather than urban geography. As the latter has a wide range of techniques, many of them tested and employed world wide in urban analysis, the intro-

duction of a new approach, especially one that is so fraught with difficulties, may thus legitimately be questioned. The methods in general use in urban geography are by and large effective analytical tools, important aids to the comprehension of what constitutes an urban area and how it functions; i.e. the discipline can analyse the political area, describe the geographical patterns and elucidate on the spatial attributes. On the other hand, it is contended that urban geography does not really assist in the understanding of why the settlement has assumed the form it has, why it has developed in the way it has, and how concepts are translated into reality. Urban geography does thus not commonly meet the major need expounded by Cohen and Rosenthal (1971): it does not isolate the political process from which the urban characteristics have evolved, and it cannot link process and end product. Herein, I feel, lies the real contribution of the unified field theory, the justification for the approach used and the main academic value of this study.

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