# A SOCIO-SPATIAL STUDY OF RECREATION IN METROPOLITAN DURBAN

by

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# CHAPTER ONE

# INTRODUCTION

## 1.1 INTRODUCTION

> There is a need for a deeper understanding of the factors which play a part in making city life worthwhile.... (Urban residents') well-being is dependent upon far more than a roof over their heads (Putterill and Bloch, 1978, 15).

There has, in recent years, been an increase in awareness, and in acknowledgement, of the contention that the satisfaction of complex human needs is necessary to ensure an individual's or group's sense of well-being. Simultaneously, there has been a willing admission that recreation is a part of this complex of needs (Gray and Greben, 1974; Burton, 1977; Murphy, 1981). In a society such as South Africa's which is characterised by rapidly rising material expectations and the likelihood of increasing leisure time, recreation is an important aspect of urban and rural, social and personal development.

South African society, shaped and constrained as it is by the laws of 'Apartheid', is further characterised by the inequitable distribution of essential resources and infrastructures, including those pertaining to recreation needs. In such a society, the identification of recreation needs assumes considerable importance; equally, the distribution and availability of existing resources and infrastructures demands careful investigation and assessment. From this it will be clear that the study of recreation in a South African context needs to be approached via such analytical frameworks as needs analysis and the spatial-justice tenets of the welfare approach to geography.

A crucial aspect of this framework, or indeed any framework which makes social well-being its central concern, is the identification and, importantly, the measurement of those human needs whose satisfaction leads to a sense of well-being. It is the contention of this dissertation that the concept of 'activity space' provides a valuable means of assessing and analysing recreation need.

More specifically, the aim of this study is to make some assessment of relative deprivation through the compilation, mapping and comparison of the recreation activity space profiles of seven study groups, selected to represent the various population groups in South Africa.

## 1.2 BACKGROUND, AIMS AND CONSTRAINTS OF THE STUDY

### 1.2.1 Background to the study and the study area

In 1979, the Department of Sport and Recreation launched a National Recreation Survey to be carried out amongst the four main population groups of South Africa. The aim of the Survey was to establish the recreation demands and preferences of the South African population so that necessary facilities could be planned and provided timeously.

The need for such a study is acute since rapidly growing proportions of South Africa's population are in need of new and/or better (and even alternative) recreation facilities. Outdoor recreation areas are, in addition, under increasing pressures which suggest that they may no longer be able to fulfil their traditional roles. And as the events surrounding the building of the Ellis Park Stadium in the Transvaal have indicated, large scale elements in the recreation infrastructure need to be planned on the basis of sound assessments of real

needs.[1] The provision of better, and needed, facilities and services in black townships may also help to avert the kind of violence which characterised townships in the Vaal Triangle and the Eastern Cape, during the second half of 1984. Residents might, at one time, have been more receptive to and tolerant of rent increases if they had felt that their needs were being adequately met in their residential environments.

In addition to the National Survey, the Department of Sport and Recreation made available resources for the funding of post graduate dissertations which would make use of the National Survey questionnaire and which would throw more light on recreation issues in South Africa. This dissertation is one of those initiated and partly funded by the Department. Further funding was, however, necessary for computer analysis of the data collected and this was generously provided by the University of Durban-Westville's Research Committee.

The study area chosen for this dissertation was determined by the terms of agreement established by the project's financial sponsors. Metropolitan Durban is, however, an ideal area for the research since it consists of a wide range of income and population groups and is, in addition, a rapidly growing urban area of a Third World nature which exhibits many elements of spatial and social inequalities (see figure 1).

Since the Apartheid policy of the South African government has a strong spatial expression based on the constraints of the Group Areas Act which segregates the residential areas which

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1. Background to this incident may be found in an article entitled "Mounting calls for Vaal rugby boss Le Roux to quit as bankruptcy looms", Sunday Tribune, 2 September, 1984.

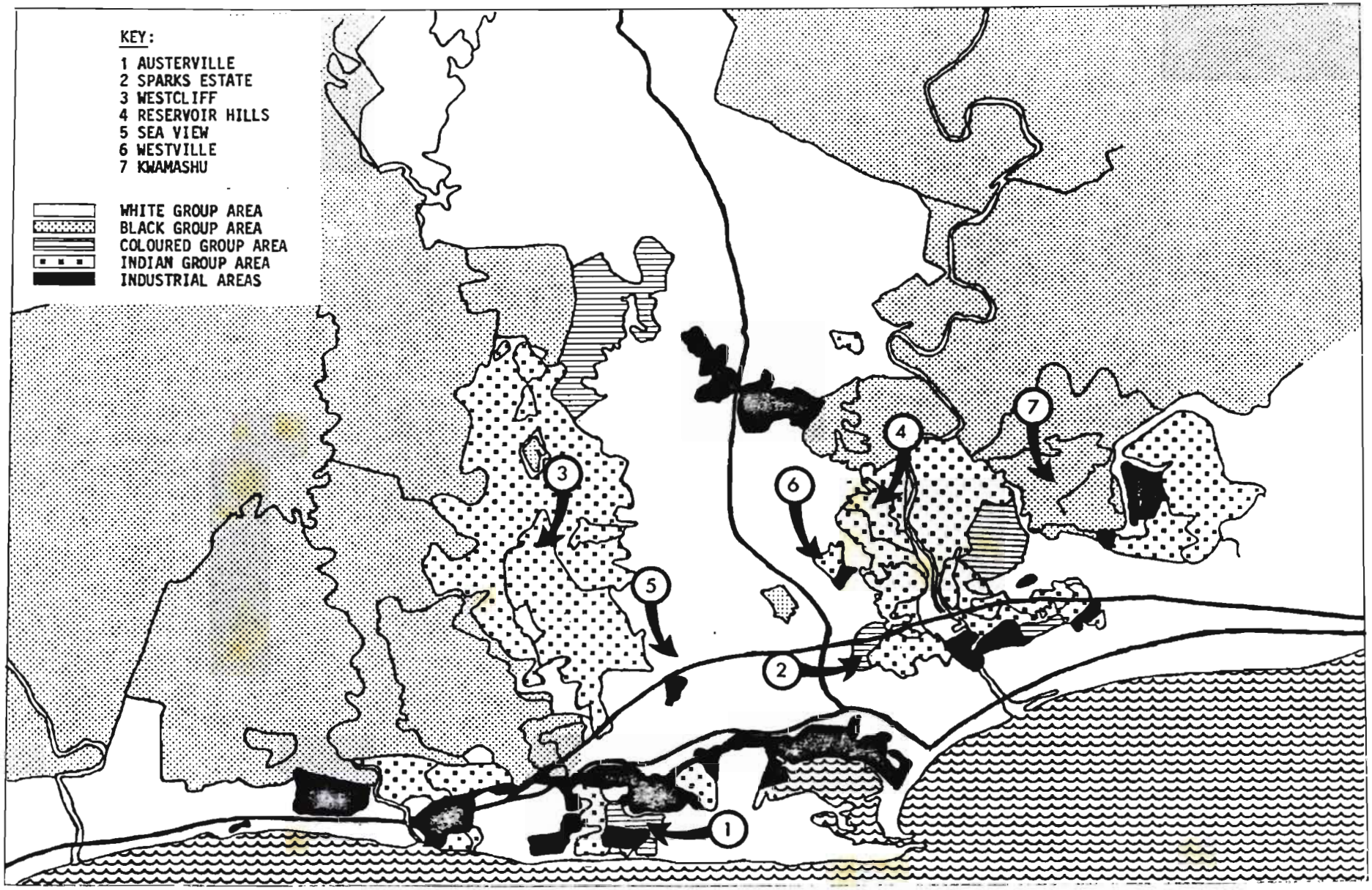


FIGURE 1 : METROPOLITAN DURBAN : GROUP AREAS

the various population groups may occupy, the relationships between social and spatial inequalities are particularly marked. They therefore offer an ideal opportunity for investigating the issues central to this dissertation (see section 2.3 for an elaboration of these points).

### 1.2.2 Outline and aims of the study

Although the aims and methodology which underpin the study will be discussed in detail in Chapter Three, this section aims to introduce the reader to some of the more important methodological issues. These include the nature of the sample and the aims of the study in broad outline.

The study was designed to cover the four main population groups in Metropolitan Durban, as recognised by the South African government -- namely blacks, coloureds, Indians and whites, as well as selected socio-economic levels within each group. Two samples, namely a 'low to middle' income and a 'higher' income sample, each consisting of a hundred respondents, were drawn from each population group, except in the case of blacks, where a sample of two hundred, representing a cross-section of socio-economic levels, was chosen.

Since concepts such as 'lower' and 'higher' income or socio-economic groups are difficult to define, the samples were selected on the basis of data in a variety of other studies (Kahn, 1983; Butler-Adam, 1978). These offered both statistical and intuitive insights into the social structure of the Metropolitan area.

The single black sample was drawn from the large and socially heterogeneous township of KwaMashu (see figure 1). The 'low to middle' income coloured sample was drawn from Austerville, and

the 'high' income sample for this group came from Sparks Estate. Westcliff, a unit in the Indian township of Chatsworth was chosen for the 'low to middle' income sample and Reservoir Hills was chosen for the 'high' income sample for the Indian group. The two white samples were drawn from Sea View, a 'low to middle' income area and from Westville, a 'high' income white residential area (see figure 1). The black group differed from the rest as a representative and geographically, clearly defined, 'high' income black residential area had not yet emerged in Metropolitan Durban. It was felt that a sample of two hundred drawn from KwaMashu, one of the biggest townships in the Durban area, would best represent this population group. A questionnaire (see appendix 1, and Chapter Three, for a detailed discussion) was administered to the total study sample of eight hundred subjects.

The main focus of this study was established as being an attempt to assess the extent and nature of the recreation needs of the study groups, through a study of their reaction activity space profiles.[1] More specifically, the aims of the study were:

Aims of her study.

*(i) to establish the nature of the study groups' expressed recreation needs through a collective mapping and analysis of the recreation activity space patterns of the individuals surveyed;*

*(ii) to attempt to uncover felt recreation needs, satisfaction and dissatisfaction amongst the members of the study groups;*

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1. For a detailed discussion of the terms 'recreation' and 'recreation activity space' refer to section 1.3 of this chapter.

*(iii) to compare the recreation activity space patterns of the study groups; and*

*(iv) to examine the impact which government policy and the location of recreation facilities have on the quality and use of the recreation environment.*

### 1.2.3 Constraints of the study

There is a time-cost constraint inherent in all research and there is little that can be done about this other than to make the fieldwork and data manipulation processes as efficient as possible.

As far as the theoretical background of the dissertation is concerned, the literature reviewed is drawn from the mainstream of recreation thought and from the canon of needs analysis and welfare geography. The review does not include reference to the recreation literature of the Marxist theorists since their major contribution in this area probably lies in the idea of the leisure-labour dialectic which may be argued to be intrinsic in the social history of leisure anyway. Thus, a discussion of the Marxist perspective on leisure would necessitate an in-depth consideration of the political economy of South Africa - a task which, it is felt, is beyond both the aims and scope of this dissertation.

## 1.3 DEFINITION OF TERMS

### 1.3.1 Recreation and leisure

Although its existence and expression have been widely commented on, there is little consensus over the exact definition of the term 'recreation'. Indeed, there is considerable debate concerning

the relationship between the term and the phenomena studied under the general heading of 'recreation'. Some theorists consider the terms 'recreation' and 'leisure' to refer to one and the same thing. Mercer, for example, states that:

> The terms 'leisure' and 'recreation' are used interchangeably... to refer to 'non-work' behaviour in which people engage during freetime (1976, 126).

Other theorists, for example Fitzgerald (in Sapora and Mitchell, 1961, 115), distinguish between 'recreation' and 'leisure': "Recreation is the natural expression during leisure of human interest seeking satisfaction", suggesting that recreation is a specific part of the larger and more temporally based concept or realm of experience called leisure.

Still others like DeGrazia (in Haworth and Smith) make a further distinction between the terms 'leisure' and 'free-time', which many theorists take to be synonymous:

> Leisure and free-time live in two different worlds.... Free-time is a realisable idea of democracy. Leisure is not fully realisable and hence, an ideal not an idea. Free-time refers to a special way of calculating a special kind of time. Leisure refers to a state of being, a condition of man, which few desire and fewer achieve (1975, 29).

Despite these terminological differences, it may be possible to categorise the plethora of recreation definitions in terms of three proposed groups, namely residual, functional and experiential definitions.

Residual definitions conceive of recreation as a residual remaining after 'other' activities have been completed. They are therefore concerned with what is to be taken out of total

time in order that recreation alone remains. What is taken out is defined with varying degrees of precision and may include, for example, categories as broad as work, 'maintenance' and the 'practical necessities of life', or as specific as 'travelling to work', to name but a few. The obvious problem with residual definitions, is that they give a negative view of recreation, in so far as they define recreation in terms of what it is not - i.e., as non-work or non-obligated time. This is a popular kind of definition and is used as a point of departure by many theorists, including Dumazedier (1976), Patmore (1970), Roberts (1970), Cosgrove and Jackson (1972) and Kaplan (1975).

The second group, that of functional definitions, consists of those which begin with a residual approach but go on to include a positive description of recreation content or function, sometimes adding a prescriptive element as well. Such a functional definition is that of DeGrazia (in Kraus, 1978, 32) for whom recreation is "activity that rests men from work, often giving them a change (distraction, diversion), and restores (recreates) them for work". Clearly, functional definitions have more to offer than do those classified as residual. Nonetheless, they remain fairly narrow and are often historically and culturally limited.

The third group of definitions consists of those which are predominantly experiential and, relatively speaking, cross-cultural. They stress the quality of recreation as a human experience. These definitions suggest that recreation, rather than being 'after work' or 'for the improvement of work', is a 'dimension of life', a 'state of being', even a 'peak experience in self satisfaction' (Parker, 1969; Haworth and Smith, 1975). The following experiential definition is proposed by Gray and Greben:

> Recreation is an emotional condition within an individual human being that flows from a feeling of well-being and self-satisfaction. It is characterised by feelings of mastery, achievement, exhilaration, acceptance, success, personal work and pleasure (1979, 13).

All three types of definitions can be criticised and deemed inadequate in one way or another. The residual definitions falter when one attempts to distinguish recreation from work. Recreation is often not rigidly segregated as an isolated compartment of life but rather pervades and is pervaded by numerous other obligatory elements in people's lives. Furthermore, what seems work for one may be recreation for another (Neumeyer and Neumeyer, 1958), and indeed, the same activity may provide recreation for a person at one time but not at another, depending upon that person's attitude to what he or she is doing (Gray and Greben, 1979). On the other hand, in so far as residual definitions relate leisure to labour, they identify what many would see as being a crucial relationship.

Functional definitions, such as that of DeGrazia quoted earlier, do not account for the fact that for many people, recreation does far more than merely restore them for work, or for the fact that non-workers also feel the need to recreate. Kraus highlights one aspect of this latter criticism:

> the idea that recreation is primarily intended to restore one for work has no meaning for such groups as ageing persons who certainly need recreation to make their lives meaningful (1978, 32)

Experiential definitions, while theoretically closest to capturing the essence of the recreation experience, pose problems when it comes to praxis. Measuring and analysing the quality of the recreation experience is a very difficult research task.

It can thus be seen from examining this single aspect of recreation, that the subject is not simple. Mercer (1976, 124) aptly captures the complexity of the matter when he likens attempting to conceptualise and analyse recreation to "attempting to grab hold of a jellyfish with one's bare hands". The complex and intrinsically elusive nature of the recreation phenomenon (Appleton, 1974), tends to render a protracted discourse on its definition futile. Indeed, Roberts states that:

> to attempt to define the concept in unambiguous terms is likely to distort the real social and human significance of its own subject matter (1970, 6).

This stance could, however, be applied equally to all realms of academic activity in which case the use of any terms at all would become problematic. There remains, nonetheless, some sense in Roberts' caution, so that, bearing in mind the limitations and relative shallowness of all definitions in relation to their reality, it may still be possible to pose an operational definition with which to work. Trying to avoid the pitfalls of residual definitions while incorporating the better elements of the functional and experiential, it may be proposed that the term 'recreation' be used throughout this dissertation, to refer to *'any activity undertaken by individuals or groups for the primary purpose of physical, mental and/or spiritual refreshment'*. This idea might be further elaborated as follows: Recreation refers to activities, usually undertaken during leisure time, which have the effect of generating emotions and/or feelings of satisfaction and individual and/or social cohesion and well-being, and which do not usually involve the generation of monetary or other material income.

### 1.3.2 Recreation activity space

Much of what follows in this dissertation will relate to, and develop, the idea of a recreation activity space. As a result, the concept needs discussion and definition.

Before considering recreation activity space *per se*, it is necessary to define the broader concepts of action space and activity space, within which recreation activity space resides. Geographers and urban planners, in their efforts to understand and explain human spatial interaction, have made considerable and increasing use of the concepts of action and activity space (Horton and Reynolds, 1971; Wheeler and Stutz, 1971; Wheeler, 1972; Tomlinson et al, 1973; Chapin, 1974). These concepts, according to Jackle, Brunn and Roseman, are particularly useful in that they:

> Provide us with a framework within which we may view all an individual's or group's spatial interaction... (they) specifically draw attention to the individual's relationship with his surrounding social and spatial environment, and allow us to examine the patterns in which individuals interact in space (1976, 92).

The concept of action space refers to an individual's total interaction with and response to his or her environment (Jackle, Brunn and Roseman, 1976). It consists of all the information a person knows about places, either through direct experience or indirect communication (e.g., the mass media), and the subjective 'utility'[1] which he or she associates with these places (Horton and Reynolds, 1971). It can be mapped to show a distribution on

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1. Place 'utility' refers to the subjective value an individual attaches to any given place (Wolpert, 1965). Such value is 'cognitive' and may accrue from indirect as well as from direct experience.

the ground -- the most common outward form of an action space. Action space, then, refers to all those spaces and places, including recreation places or locations, in which an individual potentially operates. Activity space, on the other hand, comprises all those spaces and places within which an individual actually operates. It can be defined as the movement component of an action space, consisting of those portions of an action space to which daily, weekly and even monthly movements are confined.

Action and activity spaces can, therefore, be viewed at two levels. At one level, they are spaces made up of the related pieces of information which people have about parts of their world. The second level is the 'tracing' of human behaviour on the surface of the earth as a reflection of the informational spaces. It is this second form of action and activity spaces which are mapped in this study although it is clear that they must be based on the first kind. In both instances, however, the spaces involved are not necessarily Euclidean but may have varying properties of Riemannian or Lobatchewskyian space (Kern, 1983). In other words, whether mental or expressed on the ground and mapped, action and activity spaces are essentially spaces in the relational sense of the word.

In the context of this dissertation the term 'recreation activity space' will refer to *'the sum of movements taken and the physical space traversed by an individual or groups of individuals, to and from various recreation locations'*. In other words, recreation activity space is a <u>subset</u> of activity spaces, which focuses on a particular dimension of the human use of the landscape. Such a focus is unusual in activity space studies, and the concept is equally new in the field of recreation research, where the <u>realm</u> of action generated by individuals has not, in its own right, received a great deal of attention.

## 1.4 OVERVIEW

In review, then, there is an urgent need for a study which focuses on the recreation demands, preferences and satisfactions of the South African population. This dissertation is an attempt to respond to that need.

Two central concepts in this dissertation are those of recreation and recreation activity space. The concept of recreation is not without its problems, being as it is very difficult to define and conceptualise in an unambiguous and precise way. It has, however, been established that for the purposes of this study recreation will refer to those activities undertaken to promote or effect physical, mental and/or spiritual refreshment.

The concept of recreation activity space aims to focus on these recreation activities and summarise critical elements of the movements to and from, and spatial locations of, these activities.

The main aim of this study is to attempt to make an assessment of the extent and nature of the recreation needs of the selected seven study groups through an investigation of their recreation activity space profiles.

# CHAPTER TWO

## THEORETICAL BACKGROUND

That the realm of recreation research is complicated and indeed difficult, will by now be clear. For all that, much recreation related research has been undertaken, although not all of it has been situated in a sound theoretical framework. It is one of the aims of this dissertation, to provide one such framework -- a theoretical background which might be given the broad title of Recreation and Socio-spatial Justice.

In order to develop an appropriate set of ideas within which to situate this study, it will be necessary in this chapter, to review and draw together the main ideas from four critical fields -- needs analysis, welfare geography, spatial justice and activity space mapping. These then will constitute the basis on which the empirical aspects of the study will rest.

### 2.1 THE CONCEPT OF RECREATION NEED

Despite disagreement on the components of recreation and a diversity of approaches to recreation research, there has been a recent and increasing awareness of the importance of recreation and on the point that it is, in fact, a human need (Mercer, 1973, 1976; Dunn, 1974; London et al, 1977; Tinsley et al, 1977). The neglect of recreation can, it is acknowledged, lead to frustration and ultimately conflict and possibly social unrest (Mercer, 1973; Putterill and Bloch, 1978). Recreation is listed as one of the nine basic needs by Harvey (1973) and by Coates, Johnston and Knox (1977) and it is one of Smith's (1972, 1973) seven general criteria of social well-being.[1]

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1. For examples of the criteria listed see table 1 on page 25.

Theories dealing expressly with the concept of recreation need are, however, lacking. Recreation researchers have therefore had to look to those classifications of human needs within which recreation can be accommodated and conceptualised. Such a taxonomy of need is that proposed by Maslow (1954). Basically, Maslow argued that needs are arranged hierarchically, ranging from low level needs to higher level needs. The model is hierarchical in that lower needs have to be satisfied before higher ones may come into being. The first or lowest level of needs are the physiological or primitive needs -- those for food, water and shelter, for example. The second level of needs includes safety, security and protection from physical danger. At the third level are found the social needs for belongingness and love -- the need for affection, friendship and a sense of identity with a group. The penultimate level includes esteem needs or the need for achievement, competence, prestige, recognition and appreciation. Finally, if all the lower needs are satisfied, there remains the need for self-actualisation. This is the need for self-fulfilment, the need to realise one's full potential. Maslow's views have of course, been the subject of considerable debate and disagreement, primarily concerned with the hierarchical structure of the model. For the most part, however, the contents of the conceptualisation have not in themselves, been the cause of undue debate.

Farina (1969), applying Maslow's classification more specifically to leisure, argues that self-actualisation could be considered as the end goal of recreation. He proposes further that Maslow's scheme offers an explanation for the wide range of activities and motivations that have been attributed to leisure. Whenever an individual is functioning at the level of self-actualisation and is freed from the urgent demands of lower level needs, he or she is liberated to literally play at or challenge lower level needs. According to Farina, the physiological needs of hunger,

thirst, sex and activity for example, when not faced with the urgency of unsatisfied need, find expression in the activities of the gourmet, the connoisseur, the Don Juan and the athlete. Challenging physical safety, justice or predictability by parachuting, white collar crime and gambling are, Farina argues, also examples of recreation activities that have their more serious counterparts lower down the needs ladder. At different points in time, society, space, or individual circumstances, the freely chosen risk-taking behaviour of the mountaineer, canoeist or deep sea diver, become matters of challenge and necessity.

Clearly, Maslow's hierarchical need scheme (and Farina's application of it) represents an oversimplification of reality, but such classification does offer a first step towards the understanding and empirical study of human needs -- as is recognised in a research paper of the U.S. Office of Education:

> Such a categorisation of needs provides a basis for describing an individual's welfare, or in broad terms, the quality of his life. To the extent that individuals can afford to be concerned with their higher needs and are little constrained by their lower needs, they are free to actualise themselves in whatever way is most natural to them. The more they are able to do this, the higher the quality of their lives (in Smith, 1977, 30).

Another need classification system and perhaps a more useful and realistic one than Maslow's, which can be applied to recreation, is that formulated by Bradshaw (1972). He proposes that in any given human service field, human need can be classified as being normative, felt, expressed or comparative. Normative need according to Bradshaw, is what the expert or professional defines as need in any given situation -- such as the basic needs for food, shelter and employment. The second category, felt need,

can be equated with want and arises typically when people are asked whether or not they need a particular service or facility. Expressed need, Bradshaw argues, is felt need turned into action. Under this definition, total expressed need for a service is defined in terms of all the people who use or demand to use that service. The fourth category is comparative need. This measure of need is found by comparing the relative provision of services in various communities, and defining those people who are not in receipt of a service as being in need. Thus defined, comparative need has a strong normative component which is, however, not essential. Comparative need may, for instance, be defined on an equity basis involving provision according to relative need.

Bradshaw points out that each of the four need categories has limitations. A normative definition of need is often tainted with paternalism -- as in the application of middle-class norms and values to assess need in a working-class context. A further problem with the normative definition of need is that there may exist, in the same field of study, different and conflicting standards laid down by various 'experts' arising out of their differing value systems. Felt need, Bradshaw argues, is also an inadequate measure of 'real' need in that it is limited by the perceptions of the individual. These might include awareness (or otherwise) of a particular service, cognitions of quality, and problems relating to undue positive or negative connotations of the service. It is rendered further inaccurate by those who ask for a service without really needing it. Expressed need, if used on its own, would, because it refers only to those who actually demonstrate the need, underestimate 'real' need in that many needs are keenly felt but not expressed in actions, for a wide variety of reasons. Likewise, some needs, although very real, may not be consciously identified at all, and these will rarely be expressed in regular patterns of action. The establishment of comparative or relative need is an attempt to standardise

provision, but this, Bradshaw argues, may still not correspond with identifiable 'real' need. The conclusion that one community is in need, relative to another, does not necessarily imply that the reference community is still not in need. What is more, the standards of the reference community may, in many cases, be irrelevant to the community which is apparently in need.

Bradshaw concludes that since none of these categories alone accurately defines 'real' need, all four categories should be used in any particular field of social service study.

The application of Bradshaw's four-part taxonomy of needs to any given situation is likely to give rise to a substantial number of categories of 'people in need'. These categories occur because of the large number of possible combinations and areas of overlap to which the applied taxonomy can give rise.

Figure 2 is an attempt to express critical parts of the following verbal description, diagrammatically. The two expressions compliment one another, and are best read together.

Imagine that each of the four categories of need (normative, felt, expressed and comparative) may be seen as an oval 'box', whose sides define the type of need in question and whose 'contents' are the individuals or groups who are identified with that type of need. The next situation to imagine is easy: if the boxes are linked to one another, only in so far as they deal with a common conceptual problem (i.e., needs) but have, within the constraints so set, a fair degree of freedom of movement, then a range of possible combinations and overlaps can be established by varying their locations in relation to one another.

What is shown in figure 2 is the pattern of some of the most likely, most probable, of such combinations, although (it should

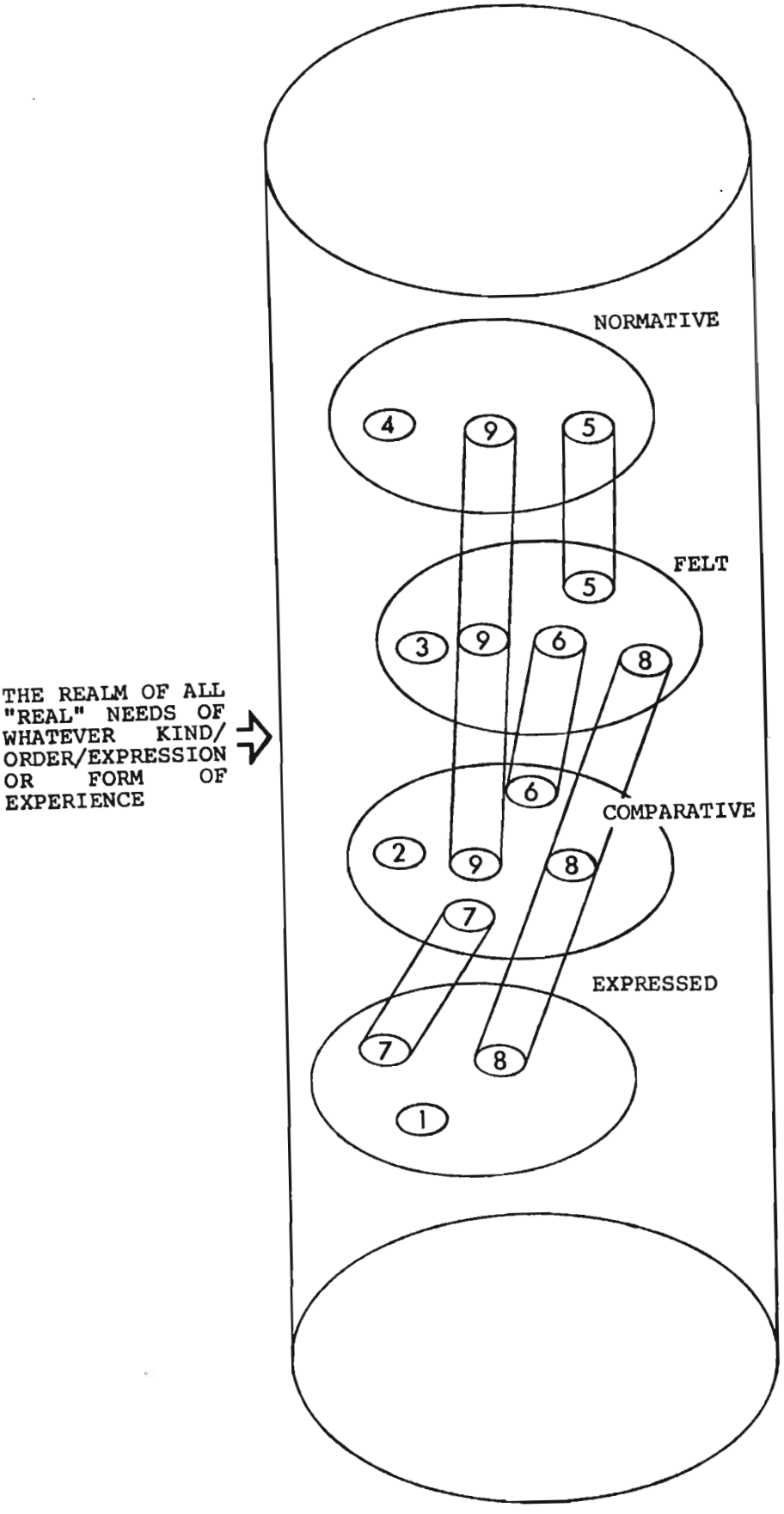


FIGURE 2 : A DIAGRAMMATIC REPRESENTATION OF BRADSHAW'S NEED TAXONOMY

(N.B. Since the diagram is static, columns have been used to indicate varying types of overlap)

be clear) other combinations might and could, very well exist. The first possibilities are those defined by a situation in which there is no overlap -- that is to say, the situation in which all people, or particular groups of people, experience (or have) only one kind of need (types 1-4 in figure 2). The other possibilities arise from various kinds of combinations. For instance, (see type 5, figure 2), some people may have felt needs and be defined by outsiders as having other, normatively based needs, or (type 8) people may express certain needs, have wants which they can articulate (i.e., felt needs), and be aware of needs which arise on a comparative basis.

A system of this nature is, of course, an a priori taxonomic device or standard amongst other possible standards, which may be used as a means for organising measured and/or experienced need-situations in the field. It is, however, (like all models) hypothetical and not a statement of individual or even nomothetically identified realities.

Applying Bradshaw's need taxonomy, as described, to recreation, Mercer (1973) identifies normative recreation need as "the more or less precise and objective standards which are set up by experts in various fields associated with recreation" (Mercer, 1973, 39). An example of such a standard is the Durban Municipality's prescription that 2 Ha of open space per thousand population should be set aside for recreational purposes. Communities compared with this standard and found wanting would, in terms of a normative need definition, be considered to be recreationally in need. Mercer, following Bradshaw (1972), states that such normative recreation need definitions are characterised by their value bias and extreme variability. Far from being standards based on well-tested empirical research, they are often merely impressions or myths about recreation, which have been institutionalised by so-called 'experts' (Mercer, 1973).

Mercer (1973) interprets Bradshaw's (1972) concept of comparative need as having two meanings in the recreation context. The first meaning implies a comparison of the actual provision of recreation opportunities in an area or a community with those provided in other areas or in other communities. The second meaning relates to the relative ability of communities to realise the recreation opportunities which they have available to them. Recreation need, in such case, is identified in terms of the 'gap' between the 'best-off' area and the rest. However, comparative or relative recreation needs may also arise when expectations which develop through the observation of some reference group in society, are not fulifiled in the observers' experiences.

A recreation need study by Craig (1972, in Mercer, 1973) illustrates this point very well. In this study, Craig found that some low-income black communities in the American South, which previously favoured and participated in inexpensive recreation pursuits, had as a result of media exposure, become aware of and expressed demand for, expensive recreation opportunities available in more affluent communities. The depressed economic state of these black communities precluded them, however, from realising such expensive recreation desires. As a result, Craig (1972) argues, these people found themselves in a state of comparative need; considerable frustration was the inevitable outcome. Smith (1977) points out further that knowledge of the condition of others may also be a function of position in geographical space and quotes the following passage from Marx to illustrate this point:

> A house may be large or small; as long as the surrounding houses are equally small it satisfies all social demands for a dwelling. But let a palace arise beside the little house, and it shrinks to a hut. The little house shows now that its owner has only slight or no demands to make; and however high it may shoot up in the

> course of civilisation, if the neighbouring palace grows to an equal or even greater extent, the occupant of the relatively small house will feel more and more uncomfortable, dissatisfied and cramped within its four walls (in Smith, 1977, 30)

While simplistic in nature, this analogy gives some insights into the concept of relative deprivation. And just such a situation, it may be posited, is arising amongst the black and other disadvantaged population groups in South Africa vis á vis the kind of recreation facilities available to (often neighbouring) white communities. One of the specific factors contributing towards the eruption of riots in the black townships in South Africa in 1976 was found to be frustration arising out of the relative dearth of recreation facilities and opportunities in these townships (Putterill and Bloch, 1978). The problem is, then, an important one and there is an urgent need to identify comparative needs in the South African context and to introduce a programme aimed at meeting those needs.

Applying Bradshaw's (1972) concepts of felt and expressed need to recreation, Mercer (1973) argues that a recreation need may be felt but not necessarily translated into action. In order for these needs to be articulated in space, certain preconditions are necessary. The individual has to perceive exactly what his or her needs are, and an acceptable recreation facility of which he or she is aware, has to be available and accessible. This argument focuses on the importance of the location of recreation facilities to the satisfaction of recreation need.

In summary then, the above discussion has shown that the concept of recreation need is, in its turn, as complex as the concept of recreation itself. This fact should not, however, deter researchers from attempting to study it since the need for recreation is a critical factor, important enough to justify studying recreation

in twentieth century South Africa. Indeed, the satisfaction of recreation need is an important element in human well-being, and as such, its study is essential for those who wish to investigate and hope to improve the quality of life of urban and rural residents in South Africa.

## 2.2 RECREATION NEED IN A WELFARE GEOGRAPHY FRAMEWORK

The idea that recreation is a human need, the identification of such needs, and attempts at their measurement are all critical starting points in a theory of socio-spatial recreation justice. The next important steps are, however, those which relate to the role of recreation well-being.

The welfare geography approach, along with welfare approaches in other disciplines such as economics and political science, begins with the assumption that human well-being is generated by the satisfaction of human needs which, in turn, leads to a better quality of life or higher state of welfare (Nath, 1973; Winch, 1973; Coates, Johnston and Knox, 1977; Smith, 1977, 1979; Cox, 1979). Recreation as a human need and a recognised criterion of human well-being (see table 1) is eminently suited to analysis within the welfare geography framework. In this section, the main tenets of welfare geography will first be outlined; the discussion will then turn to a consideration of these tenets as they apply to recreations.

While "what, how and for whom?" are the central concerns in economics (Samuelson, 1971, 16), and "who gets what?" central issues in politics (Cox, 1979, 3), the distinctive and critical issues in welfare geography are "who gets what where and how?" (Smith, 1974, 289), (see figure 3). The question "who?" (the third axis in figure 3) directs attention to the particular aggregation of population, whether it be a community, racial

TABLE 1 : CRITERIA OF HUMAN WELL-BEING

1. UN Components of Level of Living

   Health, including demographic conditions
   Food and nutrition
   Education, including literacy and skills
   Conditions of work
   Employment situation
   Aggregate consumption and savings
   Transportation
   Housing, including household facilities
   Clothing
   Recreation and entertainment
   Social security
   Human freedom

2. Composition of Drenowski's Level-of-Living Index

   Nutrition
   Clothing
   Shelter
   Health
   Education
   Leisure
   Security
   Social environment
   Physical environment

3. Organisation For Economic Co-operation and Development-areas of Social Concern

   Health
   Individual development through learning
   Employment and the quality of working life
   Time and leisure
   Personal economic situation
   Physical environment
   The social environment
   Personal safety and the administration of justice
   Social opportunity and participation
   Accessibility

4. Criteria of Social Well-being in the United States

   Income
   The living environment
   Health
   Education
   Social order
   Social belonging
   Recreation and leisure

SOURCE: Smith, 1979, 23

Note : underlining of recreation criteria in the above table has been added by the author.

group or region, necessary for the investigation of some particular facet of welfare. "What?" (the horizontal or second axis in figure 3) focuses on identifying those things which contribute to or detract from human well-being. This dimension in other words, involves investigation into the ways in which the needs of a particular group of people, under study, are satisfied or frustrated. The question "where?" (the vertical or first axis in figure 3) concentrates on how those things which enhance or impede human well-being are spatially arranged. The final issue "how?", centres around the origin of the particular pattern of "who, gets what where?". This question involves identifying and understanding the structure and operations of those agencies in society which are responsible for a particular distribution of resources (Smith, 1977).

Although the "who, what and how?" issues are considered important in the welfare geography approach, it tends to stress that welfare has a spatial expression (Smith, 1975a) -- that there is a multitude of different forces whose impact varies spatially and affects the welfare of individuals and groups according to their location (Cox, 1979).

Once an investigation of the existing pattern of "who gets what where and how?" has been completed the main aim, in a welfare geography framework, is to make some prescription of how the existing pattern could be changed in order to effect a more 'just distribution' of resources. In a welfare geography framework a 'just distribution' is usually conceived of as being an equitable distribution (Coates, Johnston and Knox, 1977; Smith, 1977). Equity, a central concept in the framework, involves distributing resources in such a way as to give most to those most in need. This idea is summarised in Marx's phrase "from each according to his ability, to each according to his need" (Marx in Smith, 1979, 42). Welfare theorists argue that an equal distribution in the sense of,

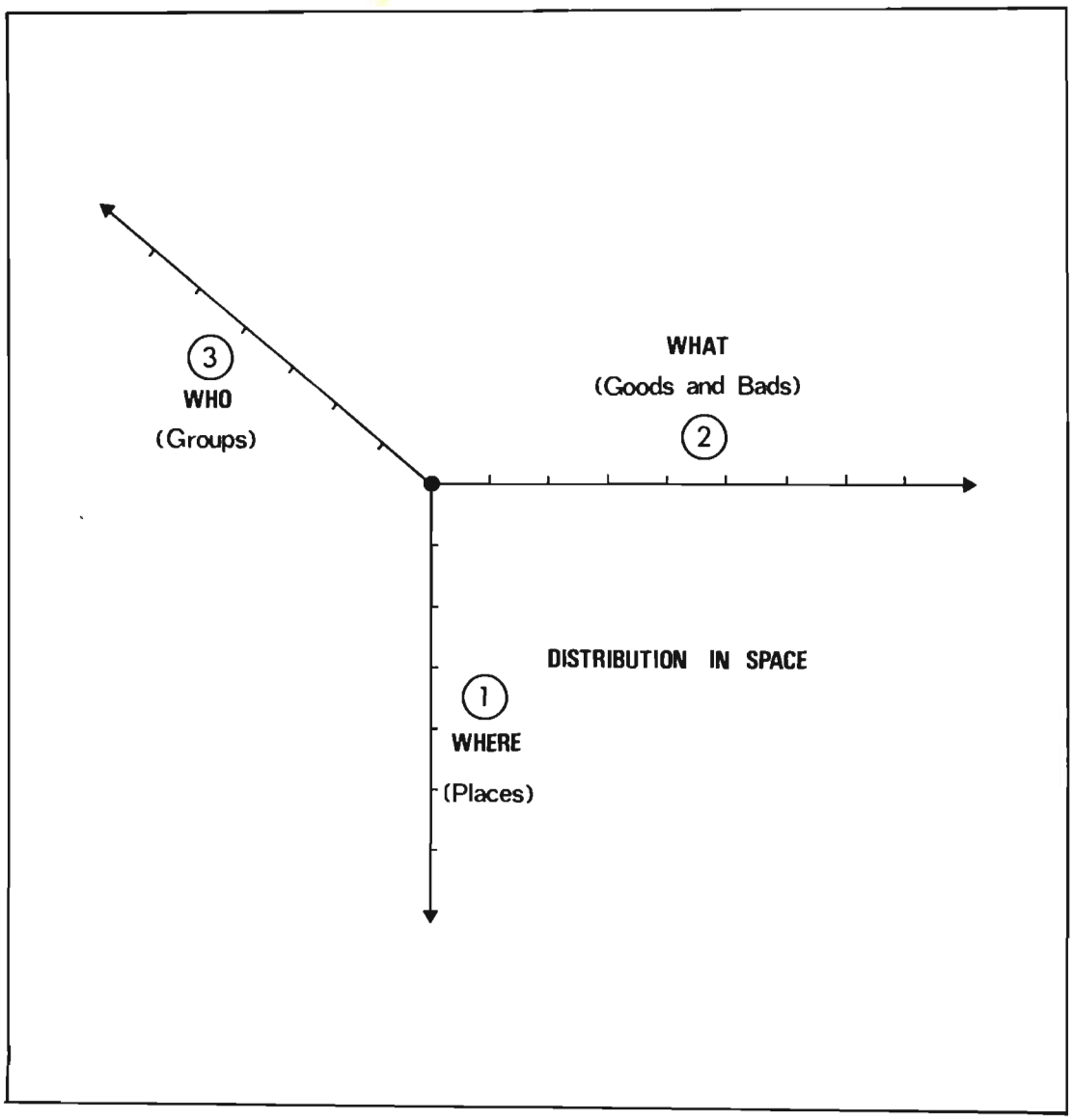


FIGURE 3 : THE MAIN COMPONENTS OF THE WELFARE GEOGRAPHY APPROACH

SOURCE : Smith, 1977, 8

for example, equal expenditure on recreation facilities, is not necessarily a just distribution (Smith, 1974, 1979). There are three main reasons why this is so. First, if one begins with unequal levels of, for example, recreation facility provision, a policy of equal expenditure on recreation would act merely to increase the already existing inequality. Indeed, it may take an unequal distribution of resources to reach a comparable level of facilities -- with more money being spent on the recreationally most disadvantaged (Smith, 1979). A second and closely related reason is that producing the same result (e.g., a given increase in recreation provision) may require more effort or expenditure in some places than others (Smith, 1979). It would, for example, take far more in terms of recreation resources to improve the recreation environment in some of the black townships in South Africa, than it would in some of the white residential areas, so welfare theorists argue, a distribution of resources according to the 'equity' rather than the 'equality' principle would ensure a more 'socially just' spatial distribution of resources (Coates et al, 1977; Smith, 1977, 1979). A third reason for favouring the equity approach lies in the observation that it is somewhat less prescriptive, allowing individuals and groups to identify needs and desires which then, in turn, give rise to a distribution of resources.

Judgements as to 'what should be' whether equity-based or not, remain value positions so that their validity depends on moral or ethical assumptions (Harvey, 1973). The welfare geographer must therefore be at pains to make his assumptions explicit before embarking on empirical analysis of "who gets what, where and how?" De V Graaf emphasises the importance of carefully formulated and acknowledged assumptions in a welfare framework. He notes:

> ...our assumptions must be scrutinised with care and thoroughness. Each must stand on its own feet.... (In positive enquiry) the

> proof of the pudding is in the eating. The welfare cake, on the other hand, is so hard to taste that we must sample the ingredients before baking.... It is clear that the interest attaching to a theory of welfare depends entirely on the realism and relevance of its assumptions, factual and ethical, in a particular historical context (1975, 3)

It will be clear from the foregoing that the concept of equity serves to add another dimension to Bradshaw's concept of comparative need. As argued by Bradshaw (1972) and later by Mercer (1973), the problem with the concept of comparative need is that in comparing, for example, the availability of recreation facilities in two communities and finding that the second community is in a state of comparative need relative to the first, it does not take into account whether or not the needs of the first community are being adequately met. The concept as defined by Bradshaw (1972) could be seen as being based on the 'equality' rather than the 'equity' principle. Redefining comparative need in accordance with the concept of equity would make it a much more meaningful and relevant measure of recreation need. Applying the equity concept, comparative need may be defined as the gap between best-off area or community and the rest with respect to their relative abilities to satisfy <u>their own particular recreation needs</u>. In this way the needs of all the communities being investigated would be considered -- the 'better-off' communities as well as those considered less advantaged. If, for example, a community of a given size has three well-equipped rugby fields whereas another community of the same size has none, a researcher adopting the equity perspective would not begin by judging the second community by the standards of the first and declare it as being in a state of comparative need. The equity perspective would require the researcher to investigate whether the recreation needs of the communities were being adequately met. It might well be the case that the needs of the apparently well provided community were such that they required

a cinema, a community centre and tennis courts, rather than three rugby fields. Conversely, it is conceivable that the community without the rugby fields would not, in any event, have had need of them. In this sense, the community which appeared best-off, could be the more deprived -- and vice versa.

In summary then, welfare geography embraces the analysis, the distribution and the consumption of all those resources which satisfy or frustrate human needs and which affect human well-being. It has been argued further that the study of recreation as an important human need which does indeed influence human well-being belongs within a welfare geography framework. The welfare geography approach furthermore, focuses on inequitable resource distributions and strives to understand their origin and effects. Recreation resources are certainly inequitably distributed in South Africa -- an issue which will be elaborated in the next section. It is in this context, particularly, that the subject of recreation and recreation facilities is appropriate to and in need of analysis within a welfare geography framework.

## 2.3 'WHO GETS WHAT WHERE AND HOW?' AND RECREATION IN THE "APARTHEID CITY"

In South Africa 'who gets what where and how?' in terms of recreation, and all other resources for that matter, has to be seen as the direct outcome of the application of 'Apartheid' or the 'Separate Development' policy. Before discussing the specific effect of this policy on recreation, it is first necessary to outline in brief the nature of the Apartheid Policy and its effect on both the form of the city and the quality of urban life experienced by the different population groups. The essence of the Apartheid Policy has been to effect a socially and politically segregated society in which mixing of the colour groups or population groups is discouraged. To this end legislation, such as the all-encompassing Group Areas Act of 1950 and

attendant enactments such as the Separate Amenities Act of 1953, was instituted to provide for separate black, coloured, Indian and white residential areas and facilities.

Such enactments profoundly affect all aspects of the quality of life of the black groups. Such legislation Davies (1976) argues, is generated by a conflict theory which stresses race-cultural differences and holds that a 'societè d'accord'[1] can only be achieved by minimising the interaction between these different population groups. That this is the belief of the ruling party is clearly evident from the Minister of the Interior's introduction of the Group Areas Bill in Parliament on 14 June 1950:

> Now this, as I say, is designed to eliminate friction between the races in the Union because we believe, and believe strongly, that points of contact -- all unnecessary points of contact -- between the races must be avoided. If you reduce the number of points of contact to the minimum, you reduce the possibility of friction. The result of putting people of different races together is to cause racial trouble (in Western, 1981, 85).

Davies (1976) stresses further that this theory of conflict is action orientated and is the central mechanism whereby society is functionally and spatially organised to the advantage of the ruling white minority.

Geographers such as Davies (1976) and other social scientists are generally agreed that the government's active application of Apartheid criteria to existing cities has drastically transformed their urban form (Brookfield and Tatham, 1957; Sabbagh, 1968; Fair, 1969 and Pirie, 1976) -- and led to the emergence of a new urban form, that of the 'Apartheid City' (Davies, 1976; M$^{c}$ Carthy, 1978; Western, 1978, 1981). Although

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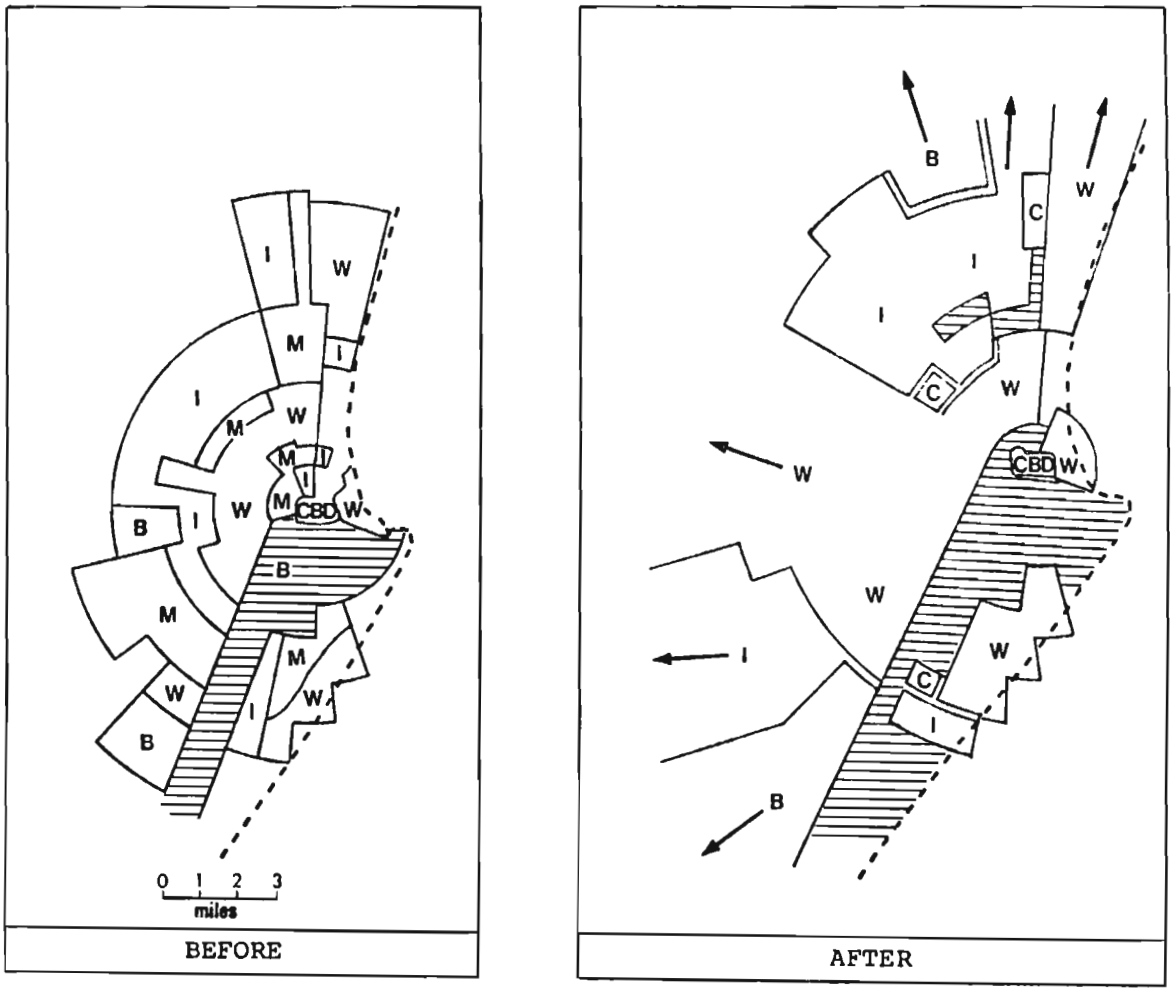
1. 'A harmonious or peaceful society'.

South African cities exhibited some form of racial segregation prior to 1950, the 'Apartheid City' form of the post 1950's emerged as "more highly structured and quartered than any multi-ethnic colonial city before it" (Davies 1976, 16). The city of Durban is a good illustration of the effect of the Group Areas Policy on the form of the city. Indeed, Fair (1969, 345) states that "the most drastic changes in racial re-orientation in South African cities are to be found in Durban". The application of the Group Areas Policy to Durban since 1950 has transformed its once concentric pattern of residential areas into a strongly sectoral pattern with radial transport lines (see figure 4) -- a pattern which clearly meets "the morphological requirements of the policy makers" (Fair, 1976, 61). Davies (1976) estimates that in order to achieve this segregated pattern, 50% of the Indian, 50% of the coloured, 67% of the blacks, but only 20% of the whites were required to move.

In the 'Apartheid City' core areas are typically entirely reserved for white residence while black, coloured and Indian groups occupy peripheral sectors. This can be clearly seen in the distribution and character of white and black residential areas in Metropolitan Durban (figure 1, section 1.2.1). The 'Apartheid City' is further characterised by strong physical boundaries or buffer strips such as highways, railway lines, vacant pieces of land, etc., to separate Group Areas from each other (see figure 5). These buffers are examples of 'policy etched into the landscape' -- they are far from subtle and are perceived by the black groups for exactly what they are -- means whereby non-whites are contained and separated from the elite white group. Adam Small comments on the effect such barriers have on the individual:

> You go to bed, you dream about it - and I am not exaggerating. I stayed just beyond the railway line and the railway line in South Africa is very often and most always an indication of the whole thing there, because




ETHNIC RESIDENTIAL STRUCTURES

W --- WHITES
C --- COLOUREDS
I --- INDIANS
B --- BLACKS
M --- MIXED

THE APPLICATION OF THE GROUP AREAS ACT TO THE CITY OF DURBAN

FIGURE 4 : MODELS OF POPULATION DISTRIBUTION BEFORE AND AFTER THE APPLICATION OF THE GROUP AREAS ACT OF 1950

SOURCE : Davies, 1976, 17

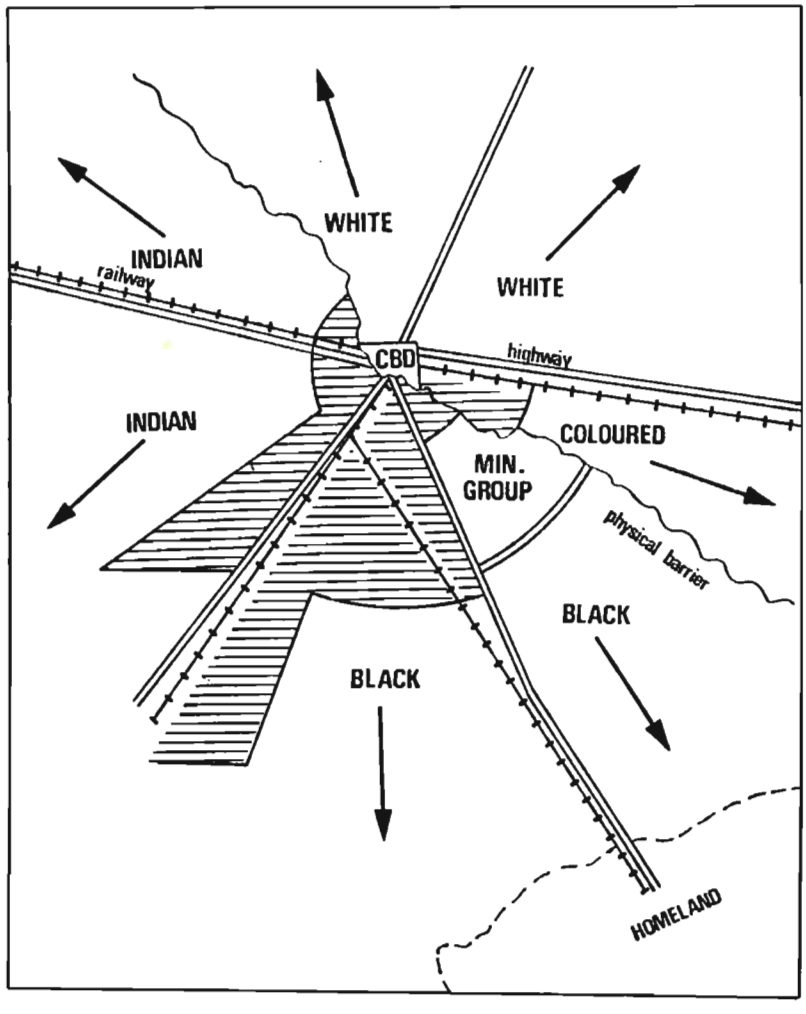



FIGURE 5 : THEORETICAL MODEL OF AN 'APARTHEID CITY'

SOURCE : Davies, 1976, 16

> you know a railway line, or something like that is a line of demarcation between Whites on the one hand and Coloureds on the other hand in a very physical sense (in Western, 1981, 84).

Recently, in an effort to improve its image with sporting bodies overseas, the government has made efforts to relax some of the 'petty' Apartheid legislation governing, for example, the use of some sports facilities, use of public facilities such as parks and beaches and the use of the more expensive hotels. But such relaxations while welcome, do not alter in any significant way the restrictive social and spatial environment in which the blacks, coloureds and Indians are forced to live in the 'Apartheid City'. In some cases these so-called 'relaxations' of Apartheid law merely represent a replacement of old Apartheid regulations with new ones. In the case of recreation facilities and services, ostensibly open to all people, 'International' Hotels are nonetheless required to prevent blacks from using some facilities. Black guests are not permitted to drink in white men's only bars; they are not allowed to dance if the hotel is not in a suitable Group Area (unless a permit has been issued to allow such dancing); and there is a 10-15% limit on rooms occupied by blacks (South African Institute of Race Relations, in Western, 1981, 62). Such 'relaxations' of Apartheid laws, and the recent recommendation of the President's Council that the Group Areas Act be retained (despite strong protest from the black groups) show clearly the "conscious efforts of the rulers to maintain their social distance from the ruled, backed by the law's sanctions" (Western, 1981, 62).

In short, in the 'Apartheid City' who you are will to a large extent determine what and how much you will get in terms of recreation and other resources and importantly, where you will get them. All population groups are, it is clear, required to live in specific 'Group Areas' and the whites have the greatest

range of choices available to them in white group areas. Place of residence is, in turn, a critical determinant of an individual's life chances (Smith, 1977) -- having, as it does, a profound effect on all facets of his or her life -- on education, occupation and recreation opportunities, to name but a few. Smith (1977) argues that ease of mobility (which the 'Apartheid City' precludes the black, coloured and Indian groups from enjoying) implies the capacity to choose a place of residence from a range of alternatives -- "the greater the mobility, the greater the freedom to avoid the effects of negative externalities and to choose the particular mix of local services and so on that best satisfies personal preferences" (Smith, 1977, 118). Blacks coloureds and Indians are, however, denied this freedom of choice and 'Separate Development' inevitably means peripheral rather than central residential locations for them (Fair, 1976). These groups then have to pay the many and heavy social and related costs which forced peripheral and often inferior residential locations generate. Smith (1977, 118) argues strongly that "restrictions on freedom of residential choice not equally applicable to all are an obvious prima facie indication of social injustice".

Residential location is a crucial factor in the satisfaction of recreation need. An individual's place of residence determines the kinds of recreational environments (and hence activities) that are potentially available and therefore the extent to which recreation needs can be satisfied (Mercer, 1976). To repeat, once an individual has internally articulated recreation need, there has to be available a suitable recreation facility nearby to which he has access in order for that need to be expressed in space and fulfilled. It is a well-documented fact, however, that there is a dearth of recreation opportunities and facilities in the black, coloured and Indian residential areas (Smith, 1974; Duncan in Fair, 1976; Pirie, 1976). This fact is also stressed by Putterill and Bloch:

> ...It can be safely said that in South African cities there are significant deficiencies in the quantity and quality of facilities for leisure activity, particularly in the large concentrations of Coloured and Black residents. At the same time it has been shown that access to leisure facilities is an important component of city life and a contributor to both urban stability and the quality of life in our cities (Putterill and Bloch, 1978, 19).

Putterill and Bloch (1978) are of the opinion that recreation is a central and integral element shaping the quality of urban life and the point has already been made that recreation is a basic human need. They comment further that providing just a dwelling for a relocated family (most often a black, coloured or Indian family) is an inadequate response to needs, since attention must be given to the whole housing environment. In so far as most townships or suburbs lack (even after some years of development) basic amenities for social interaction such as community halls, sports-fields and so on, they obviously fail to meet human needs. And this is indeed a situation which Maasdorp and Pillay (1977) and Putterill and Bloch (1978) maintain is the rule rather than the exception in South Africa. In addition, such a lack inevitably contributes to a sense of real and relative deprivation. Putterill and Bloch state that this is particularly evident where application of the Apartheid policy:

> ...broke up existing communities without providing adequate safeguards to preserve social institutions and cohesion in the new situations. Inevitable anti-social activities have taken root and the level of fear and tension is unacceptably high (1978, 16).

These researchers also suggest that greater attention should be given to the process of providing facilities at the level of neighbourhoods and small suburbs. They are critical of the

tendency of institutions in South Africa to favour and invest in large leisure facilities designed to serve a whole city. While facilities such as the State Theatre in Pretoria (which cost millions to build) and the Good Hope Centre in Cape Town (which cost 14 million rand) certainly add something to the social and cultural flavour of city life, their erection at a time when many existing black suburbs lacked even the most basic of recreation facilities did little to redress the problem of imbalance in the availability of recreation opportunities. Furthermore, these grand structures are usually located in the city centre and are therefore relatively inaccessible to many peripherally located residents. A further criticism is that these facilities tend to serve only the more affluent minority of society who can afford the high admission tarrifs which make them viable (Putterill and Bloch, 1978).

As stated earlier, the question of how resources are provided and distributed is an important one in the welfare geography framework. The discussion will therefore now focus on the operation of those agencies and authorities responsible for the provision of recreation facilities in South Africa. Due to the lack of finance, administrative experience and effective political institutions, many black, coloured and Indian communities are almost totally dependent on the Government for the provision of recreation facilities. Low income white communities find themselves in the same position but such communities tend to be relatively few in number. The majority of white communities are in a more favourable position than most black groups, having at their disposal the finance and other resources necessary to provide and maintain a good number of their own recreation facilities. This is evident in some of Durban's white suburbs such as Durban North, Berea and Westville, where there exist a number of well-equipped private sports and social clubs.

Those coloured, Indian and white communities dependent on the State for recreation facilities face a very complex set of administrative procedures which have been laid down to handle the provision of recreation facilities. The most comprehensive study of the recreation administrative system was conducted by Putterill and Bloch (1978). Although their work dealt with the Cape Province, the framework they developed has relevance for Natal and has been adopted here to offer insight into the workings of the local system.

A number of levels of administration are involved in approving any recreation facility application. Figure 6 shows some of the steps or tiers involved in approving recreation facilities in Metropolitan Durban. Proposals for new recreation facilities may be put forward by the relevant local affairs committees or by residents through their relevant city councillors. As far as the coloured and Indian communities in Metropolitan Durban are concerned, there are four elected local affairs committees namely, the Northern Indian Local Affairs Committee (L.A.C.), the Southern Indian L.A.C., the Grey Street L.A.C. and the Durban coloured L.A.C.. These applications are then referred via the Town Clerk to the Director of Parks, Recreation and Beaches. If he and his department agree that the need for such a recreation facility exists he passes it on to the City Engineer, whose department checks to see whether or not the required land exists. If land is available the application is passed on to the Amenities Committee which discusses the application and may refer it to other consultative committees for comment before its approval of the application. Hereafter the application is submitted to the Management Committee (Manco) for its approval of the application in principle. From here the application is sent back to the Director of Parks, Recreation and Beaches for further referal to the City Engineer's Department where detailed plans and estimates of costs are prepared. These are once again referred to the Amenities

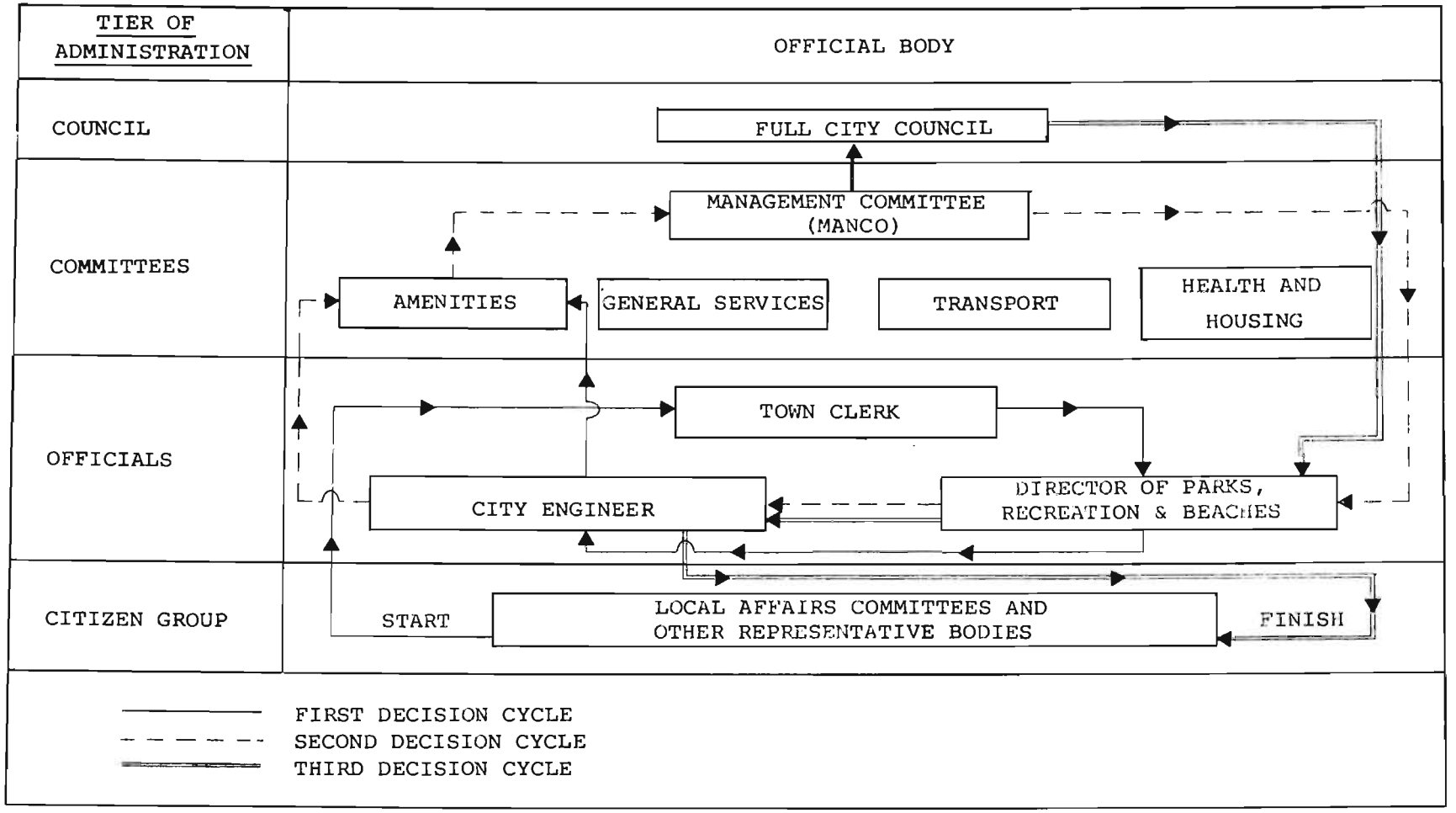



FIGURE 6 : ADMINISTRATIVE PROCEDURES INVOLVED IN RECREATION FACILITY PROVISION IN DURBAN

Adapted from Putterill and Bloch, 1978

Committee which passes it on to Manco. Once Manco is happy with the proposal it is submitted to the full council for approval. If the City Council approves the application, funds are made available and the application returns to the Department of Parks, Recreation and Beaches and the City Engineer's Department for implementation.

The procedure is somewhat different for urban black residents. Although many changes are supposedly going to be made in the system in the future, the present system involves the Bantu Administration Boards which came into being in 1971 and replaced the local authorities. These boards are responsible for many of the functions previously carried out by local authorities, including matters concerning housing and the provision of recreation facilities. The problem with this system is that these Administration Boards lack adequate finance for the many tasks they have to carry out (Putterill and Bloch, 1978). They have only three sources of finance namely, the sale of liquor, fees charged to employers and house rentals - all of which render revenues which fall far short of that which is required (Putterill and Bloch, 1978). The need for recreation facilities in black residential areas is acute and will remain so until the weak financial base of the black townships is rectified (Putterill and Bloch, 1978).

From the above outline it is evident that the procedure for the provision of recreation facilities for all population groups is very complex, often resulting in intervals of between two and four years between application and construction of the desired facility. Putterill and Bloch (1978) enumerate a number of serious deficiencies in the present administrative procedures for the provision of recreational facilities. These deficiencies include:

> ...inadequate finance; complex procedures which are hard to understand; decision-makers who lack contact with applicant groups;... ad hoc budgeting which is susceptible to sudden change in investment direction; community facility projects in existing areas which appear to have a low national priority; communities which tend to be left without particular facilities yet are provided with others which they do not feel are as relevant (Putterill and Bloch, 1978, 108).

These deficiencies are disturbing in a system which is responsible for meeting the recreation needs of so many people. The situation is particularly serious since urban population growth in South Africa is extremely rapid -- especially amongst the poor -- and conditions are already uncomfortable and, in some cases, intolerable for many. Putterill and Bloch (1978) point out saliently that events in South Africa over the past few years have shown how potentially expensive is the result of failing to heed points of friction and failing to reinforce positive forces of every kind in urban communities. They conclude that greater efforts should be made to assess the recreation needs and problems of residents in South Africa, especially the needs of the black groups which appear to be great. The research undertaken in this project suggests that the contention is valid that the focus in the research field should be on 'needs' -- and how they are satisfied or frustrated. It follows that this dissertation is an attempt to address this urgent and important task.

## 2.4 RECREATION ACTIVITY SPACE MAPPING AND ANALYSIS AS A MEANS OF MEASURING RECREATION NEED

While it is acknowledged that the study of recreation need is crucial in attempting to solve the leisure problem in many South African residential areas, such study poses considerable

methodological problems for the researcher. As argued earlier (in section 2.1) recreation need is difficult to define and even more difficult to measure. It was also argued that Bradshaw's need taxonomy, in which needs are classified as being normative, felt, expressed or comparative, is very useful in attempting to define recreation need. Mercer (1973) points out, however, that only the latter two categories of Bradshaw's scheme, namely expressed and comparative needs are in any sense 'objective' and measurable with any degree of precision. He refrains, however, from indicating what means should or could be used to measure these two need categories. One technique which can and will be used in this dissertation to assess expressed and comparative need is the mapping and analysis of recreation activity spaces.

Recreation activity space may be defined as the sum of movements made by an individual or groups of individuals to and from various recreation locations (see section 1.3.2.). As stated earlier in this chapter, expressed recreation need is felt recreation need turned into action. In geographical terms, this means that expressed recreation need is the basis for the formation of patterns in space -- patterns which reflect (or, in their turn, express) the search for need satisfaction. Mapping these expressed needs using measures of time and distance taken to reach recreation sites, produces a model which is referred to as a recreation activity space.

Mapping recreation activity spaces provides insights into the socio-physical resources and related needs of a person or group by identifying the "resources which are sought to cater for their needs" (Butler-Adam and Venter, 1977, 12). Mapped recreation activity spaces can be viewed then as a statement of the extent to which an individual or community has, and is able to express and satisfy recreation need, using various resources (Hyland, 1970; Anderson, 1971; Buttimer, 1972;

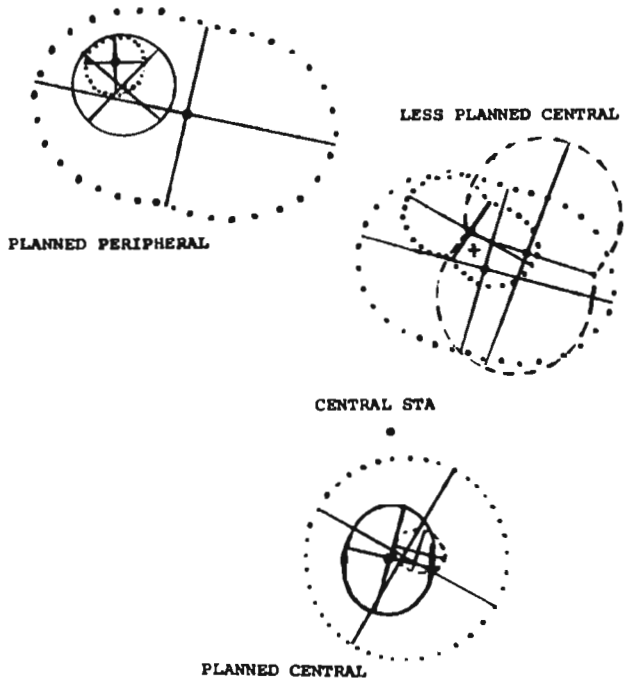
Chapin, 1965, 1971, 1974). Activity space maps, although usually initially compiled at the level of an individual's movements to particular activity locations, are usually analysed at the aggregate level of a particular group or community. Such recreation activity space maps can be very useful in indicating the relative well-being or ill-being of a community as compared either with normative recreation standards or with the recreation activity spaces of other communities. In relation to felt needs of a community, recreation activity space maps can be seen as a measure of the degree of equity enjoyed by the community in relation to others -- as such these maps can be viewed as a statement or measure of comparative, attempted recreation need satisfaction as defined earlier (see section 2.2). Butler-Adam (1979) argues that it is in their application to the comparative analysis of groups or individuals that activity spaces become truly analytical and consequently valuable tools in the identification of relative spatial and environmental deprivation.

Although the mapping of activity spaces is a very useful tool in measuring individual and community needs, it is not without methodological and technical problems and limitations. These problems mainly arise out of the type of data which have to be collected and analysed in compiling a comprehensive activity space map. Most activity space studies use 'space-time' data which include the spatial co-ordinates of an individual's activity locations, as well as his or her time allocation to (and the character of) these activities. Harvey (1969, 217) states that the problem with dealing with such data "amounts to the difficult logical problem of working with two different language systems in the same context". In the case of recreation activity space studies, the two language systems are the 'substance' language and the 'space-time' language (Anderson, 1971). The non-spatial 'substance' language describes characteristics or properties of the subjects'

recreation activities (e.g., types and contents of activities etc.) while 'space-time' language specifies the locations in space and the positions in time of the various activities.

Anderson (1971) argues that the more common response to 'space-time' data sets in activity space studies has been to abstract from them and perform one or more separate analyses of the abstracted data. He posits that these simplification procedures fall into three categories. The most basic procedure involves collapsing the locational or 'space-time' language to a 'substance' form. In this procedure, the aspects of sequence and spatial location are ignored and time spending becomes a characteristic of subjects or populations as a whole. An example of this procedure is Meier's 'index of urbanity' based on standardised durations of specified activities in different types of settlement (Chapin, 1974). In the second category of procedures the timing and/or sequence of activities are made explicit but their distribution in space is not (e.g., the plotting of traffic volumes over a certain period of time). The third kind of analysis and mapping emphasises the spatial organisation of activity space patterns rather than their temporal dimension. An illustration of this kind of mapping is the Standard Deviational Ellipse technique used to describe several dimensions of aggregate activity spaces (Hyland, 1970; Buttimer, 1972; Perkins, 1977, 1978). Examples also include the Radial Distance Maps used by Butler-Adam (1978), by Putterill and Bloch (1978) and used in this dissertation to indicate the average distances which poeple have to travel to the resources they require to satisfy their needs (see figure 7).

All three categories of analysis outlined above are (either separately or in various combinations) relevant and useful in activity space studies. The use of combinations of techniques where possible is particularly desirable in that they attempt




Standard Deviational Ellipses

The Ellipses provide a graphic description of:

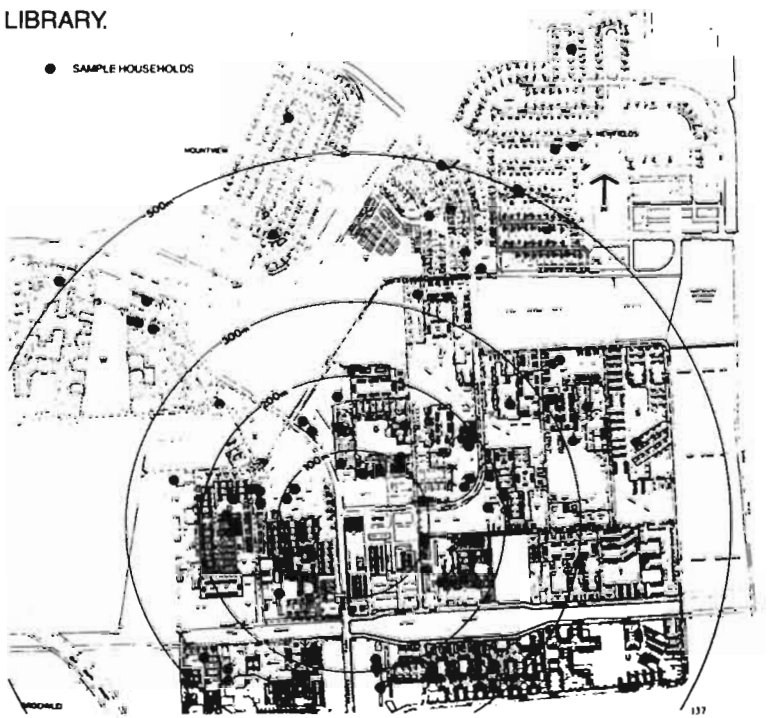
1) The overall volume of interaction as defined by the area of each Ellipse.

2) The degree of spatial concentration as expressed in the dimensions of minor and major axes.

3) The directional bias as indicated by the tilt of the major axes.

4) The nature of activity space orbits with separate Ellipses for social participation spaces, and macro and micro-service spaces.

Source: Buttimer, 1972, p. 294.




Radial Distance Map

Map shows distances travelled by sample households to reach the library.

Source: Putterill and Bloch, 1978, p. 137.

FIGURE 7 : TYPES OF ACTIVITY SPACE MAPPING

to provide one with an idea of both spatial and temporal dimensions of activity space patterns. However, obtaining comprehensive and precise measures of the overall activity pattern of an individual or community remains a problem in this field.

Butler-Adam (1979) offers further insights on the issue of the comprehensive measurement of activity spaces. He argues that although activity spaces should measure human movements on the surface of the earth, the measurement of such physical distance and direction is not enough. Much more information must be added in order that activity spaces transcend the superficial and the descriptive labels they have often been given, and become the powerful analytical tools they have the power to be in the geographical analysis of human well-being. Such added information includes more detailed data on the movement, destination and origin aspects of activity spaces (Butler-Adam, 1979).

In assessing the 'movement' aspect, which is the basic dynamic of activity spaces, the factors to be taken into account are physical distance, direction, transport mode and overall satisfaction with movement patterns (Butler-Adam, 1979).

As far as the 'destination' aspect of activity spaces is concerned, the measurement of the individual's satisfaction on reaching a desired recreation facility should include such data as the quality of the facility as well as data on the suitability of the location of the facility relative to the home of the user (Butler-Adam, 1979). In addition to information on movements and destinations, measurement of activity spaces should include an assessment of the home-base or rather 'origin' of the individual's search for need satisfaction. Data on the quality of the residential environment of the individual or group are essential in

compiling a comprehensive and meaningful activity space. An activity space which has been properly measured can qualify, Butler-Adam suggests, as a geographical profile indicating the "social, economic, political, environmental and informational factors influencing an individual's attempts to satisfy needs in space" (Butler-Adam, 1979, 7). In this dissertation, it is contended that the profile-measuring property of an activity space is indeed effective. This measured activity space may therefore be called an Activity Space Profile.

Apart from the specific technical problems in the field of activity space study discussed earlier in this section, there are other more general methodological issues relating to the use of activity space profiles to assess needs. One such issue relates to the socio-cultural constraint inherent in activity space studies. In different societies and cultures particular needs may be met without them being expressed in common and measurable ways (Butler-Adam and Venter, 1977). Bradshaw (1972) and Mercer (1973) also agree that expressed needs do not encompass all felt needs. Activity spaces which measure expressed need can therefore be argued to be limited in this respect.

However, despite these methodological problems, Butler-Adam and Venter (1977, 15) believe that such activity space profiles "can provide information for planners which will help them to provide communities with the facilities and services which those communities feel to be necessary to their well-being". Planners and policy-makers in the recreation field certainly need the kind of information that will enable them to more effectively answer urban residents' recreation needs. In so far as mapping (and the analysis of) recreation activity space profiles provides this necessary information by enabling the researcher to ascertain how individuals use urban recreation

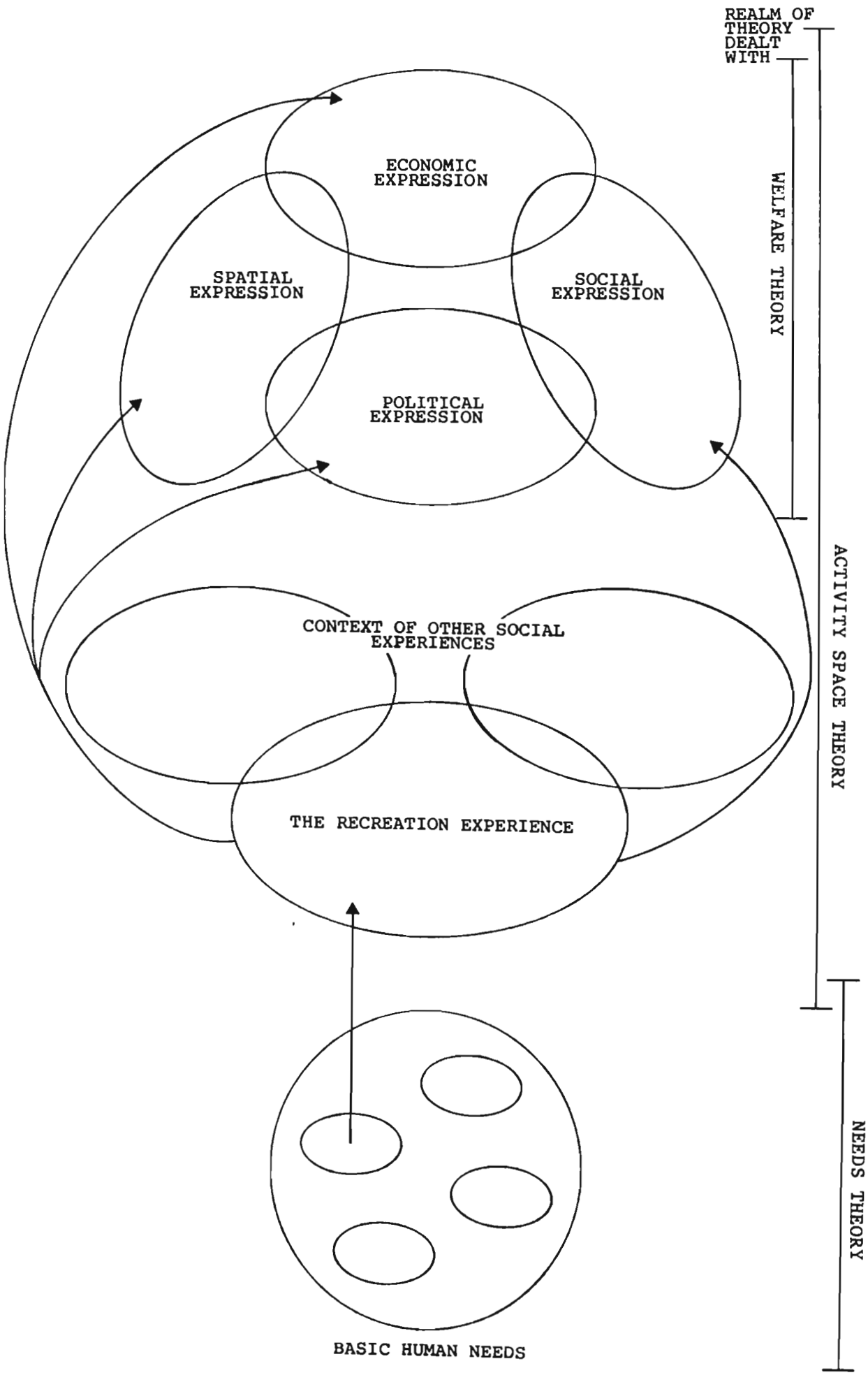
resources, to compare communities with one another, and to assess their relative well-being, it has considerable merit as a social indicator and measure of recreation need.

## 2.5 OVERVIEW AND INTENTIONS

The diversity of theoretical and methodological ideas presented in this chapter tends to approach recreation from three primary perspectives namely needs, welfare (especially in the 'Apartheid City') and recreation activity spaces.

In a sense these three theories may be seen to deal with specific aspects of recreation. Need theory relates to the generation of recreation activities and suggests its importance in the realm of human experience. Welfare deals essentially with normative issues and the problem of who should get what (kind of) needs satisfied where. The third theoretical area, that of recreation activity spaces, provides a coherent means of looking at expressed needs and examining the de facto welfare (or non-welfare) status of the recreation experiences of individuals or groups under study (see figure 8).

Overall, the emphasis is on recreation as an essential and vital aspect of human activity and social or physical experience. This idea is fundamental in all three fields of theory. Most important, however, is the observation that these three theories are particularly germaine in the socially and spatially 'unjust' South African situation where recreation is seen as a privilege rather than a right so that those most in need, recreationally, have fewest recreation resources and opportunities available to them. Furthermore, no real study has been made of the actual recreation patterns of individuals or groups as indicators of relative deprivation. It is the intention of this dissertation to attempt to address the latter deficiency.


REALM OF THEORY DEALT WITH
WELFARE THEORY
ACTIVITY SPACE THEORY
NEEDS THEORY
ECONOMIC EXPRESSION
SPATIAL EXPRESSION
SOCIAL EXPRESSION
POLITICAL EXPRESSION
CONTEXT OF OTHER SOCIAL EXPERIENCES
THE RECREATION EXPERIENCE
BASIC HUMAN NEEDS

With respect to needs, an attempt has been made in the following chapters to make some assessment of the recreation needs of the seven study groups in terms of Bradshaw's taxonomy of normative, felt, expressed and comparative need. Chapter Three details the specific methodology which underpins the study. Section 2.3 argues that who you are in the 'Apartheid City' determines what and how much you will get in terms of resources. Chapters Four and Five present a picture of 'who has got what' with respect to socio-economic variables such as income, education, occupation and free-time, etc., and discuss the effect of such variables on recreation behaviour. The activity space theory presented in section 2.4 argues for the compilation of comprehensive activity space profiles in the attempt to measure expressed need -- Chapter Six is an attempt to accomplish this task. As recommended in section 2.4, additional information about recreation movement, destinations and origins, measured along a variety of dimensions has been added to the mapping of the recreation activity space profiles of the seven groups under study. Chapter Six makes inter-group comparisons on the basis of the criteria or dimensions set out in section 2.4 and attempts to assess and explain with reference to all three core theories namely, needs, welfare and activity spaces, the relative recreation well- or ill-being of the study groups.

# CHAPTER THREE

# METHODOLOGY

This chapter introduces the methodology which underpins the study. It will discuss in some detail the fieldwork and data collection phases of the research as well as some specific methodological issues pertaining to these aspects of the research.

## 3.1 THE DATA COLLECTION

### 3.1.1 Methodological issues in activity space data collection

Most researchers interested in the concept of activity space make use of either time budgets or space-time budgets in compiling activity space profiles. The notion of a time budget describes the sequence, timing and duration of an individual's activities for (typically) a short period of time ranging from a single day to a week. Space-time budgets include the spatial co-ordinates of an individual's activity locations as well as his or her time allocation. More recent activity space investigations, such as those of Chapin (1974), added the concept of human need to activity space studies. These needs are seen as the motivating forces behind human movement profiles, and activity space schedules are compiled to probe these needs and to attempt to assess their satisfaction.

Two broad approaches to the collection of activity space records are discernible. The first is based on survey-research methods and the second on ethological study methods. In the survey-research approach (which was followed in this study)

activity data are obtained through structured interviews from a sample of subjects. This is usually done in one of three ways. One of these ways involves the check list approach, which was employed in this survey, in which subjects identify from a pre-categorised list of activities, those they engage in on a 'typical day' or during a 'typical week'. Activity locations such as dams, beaches, cinemas, sportsfields and the like, used in this study, can be specified using this approach. A second approach to survey-research is the use of the 'day after' method, in which subjects are asked to list things they actually did the previous day as well as where and when they did them (Chapin, 1965, 1968, 1971). A third approach is the 'diary' method in which subjects keep a diary on what, when and where aspects of their activities on the day following the interviewing (Tomlinson et al, 1973; Cullen et al, 1972).

Direct and continuous observation is the key technique of data collection in the ethological approach. Unlike other methods, direct observation requires the qualitative assessment of the activities observed. Such on-the-scene observation captures a wide range of nuances that go with an activity.[1] Spatial scale is an important factor in the relative success of ethological studies of human activity. Such studies have been most successful in small group situations and on a very limited scale, for example, the study of behaviour in room environments. For the analysis of human movement patterns at the residential scale, as in this study, or at city scales (in which geographers are more interested), continuous observation is, unfortunately, impractical if not impossible.

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1. Proponents of this method (e.g., Goffman, 1963, 1971; Somer, 1969) argue that continuous and direct observation provides a means of assessing aspects of 'thought ways' and 'life ways' that slip through the net of survey-research.

In addition to the task of selecting an appropriate general methodology, there are specific issues and technical problems to contend with in activity space investigation. One such issue concerns the classification of activities. The issue of classification of activities centres not so much around whether or not classification should occur, but rather around the stage at which classification should take place (Chapin, 1974). The opinions on this issue tend to fall into two camps, one arguing for a non-structural form of field listing, the other arguing for the admissibility of pre-categorisation of activities. Those supporting the former view argue for obtaining the meaning of an activity to a subject and seeking to define a classification system that grows out of the subject's own characterisation of activities. This approach posits that subjects have difficulty in objectively assessing the purpose of each particular activity with sufficient certainty to enable them to fit into pre-categorised classes of activity (Chapin, 1974).

The alternative position argues that the pre-categorisation of activities is possible when applications of the data are known at the start of the study, as was the case in this study. In these cases such categorisation should be an essential design-feature of the study. This position argues further that some classification of activity must be mentioned in explaining the purpose of the study to the subjects, in describing the type of information that is needed and in gaining the co-operation of the subject (Chapin, 1974).

Associated with each position is a preference for a field-listing technique. In the case of the 'unstructured activity' stance, the diary technique is considered to yield the most accurate and complete record of the respondents' activity taxonomy. It is argued that the diary method gives rise to activity information in the purest form possible as the

researcher has not been able to confine the respondent's attention to a few specific activities as in other field methods. In the 'structured activity' approach, which was followed in this study, the preferred technique involves handing the respondent a pre-categorised list of activities, in this case recreation activities, and asking him or her which of these he or she does in a typical day or week. In short, one position favours 'respondent' classification of activities, while the alternative position argues for a 'researcher' classification of activities.

Clearly, each position has advantages and disadvantages, depending upon the purposes for which a study is designed and undertaken. This study had, for example, from the beginning of the endeavour, a primary focus on recreation need and facility provision. The pre-categorised approach was, therefore, the most appropriate one to use. Using this technique the kind of information required could be specified, e.g., the frequency and duration of visits to cinemas, sports-fields, etc. Such information may not have been yielded by the free-form diary approach and should this have occurred the study would have failed to fulfil its original aims.

### 3.1.2 An outline of the questionnaire

The questionnaire employed in this study consisted of two parts (see appendix 1). The first four pages constituted the Department of Sport and Recreation's National Survey, and the first part of this study's questionnaire. Section A of the National Survey focused on the socio-economic data of the respondent: the respondent's race, nationality, sex, language, education, occupation, marital status and the size of his or her 'nuclear family'. For the purposes of this survey, a 'nuclear family' was defined as consisting of *those people who were related, lived under the same roof and shared a common table.*

Section B of the National Survey questionnaire concentrated on collecting information on recreation trips undertaken during the following three time periods: 'a day or less', 'a few days' (over a weekend or a few days in the middle of the week), and 'a week or more' (e.g., an annual holiday). Detailed information on these recreation trips such as type of recreation activity, type of recreation place, transport used, size of group doing the activity, season in which activity is done, distance travelled, time taken and activity preference ratings, was collected on a separate schedule for each time period.

Section C of the National Survey was devoted to general information on the respondent. This section included questions on recreation facility problems and preferences and a question on household income. Fieldworkers were instructed to ask the question on income at the very end of the interview so as to avoid upsetting respondents at the beginning of the interview and possibly jeopardising the chances of respondent co-operation.

The second part of the questionnaire used in this survey was designed by the writer to supplement the National Survey, and to elicit more detailed information on the respondents' recreation needs, satisfaction, preferences and activity space patterns. The socio-economic data requested in this part of the questionnaire have bearing on the respondents' recreation activities, e.g., monthly household recreation expenditure. The 'leisure' and 'sport' activity tables (the last two pages of the questionnaire) include a selection of what Patmore (1970) termed 'active' and 'passive' recreation activities.[1]

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1. The activity tables used in the questionnaire employed in this study were adapted from those used by Butler-Adam (1978).

An 'other' category was included in the activity tables to tap any activity which the respondents participated in but which was not listed in the tables. Questions about each activity included: how long the respondent had been doing the activity; the people with whom the activity was done; the specific location of the activity; why that location was chosen and what alternatives would be preferred; transport mode and transport problems encountered in reaching the recreation facility; frequency of the activity and whether or not this frequency was suitable; and finally, the respondent's opinion on the quality of the recreation facility used. Many of the data from these activity tables were used in compiling the recreation activity space maps of the study groups.

### 3.1.3 Problems encountered with the questionnaire

Hindsight showed that the questionnaire had certain problems or flaws which reduced its efficiency. The main general criticism of the questionnaire concerns its length. The questionnaire was too long, with an average interview taking as long as an hour to complete. Respondents consequently grew tired of answering the questions put to them and needed much encouragement from the fieldworkers to complete the questionnaire.

More specifically, the time period schedules in the Department of Sport and Recreation's survey proved to be very tedious for the respondents to answer as they required a great deal of repetition. Fieldworkers also found these schedules the most difficult part of the questionnaire to fill in. This situation resulted in mistakes being made by the fieldworkers which necessitated many call-backs in order to correct errors.

## 3.2 THE FIELDWORK

The fieldwork began in January 1980 and was completed in December of the same year. Once the seven study areas had been chosen, a sample of one hundred addresses (or two hundred in the case of the black population group) was drawn (as described below) from each area. Each fieldworker, who had been carefully trained, was given a map of the area to be sampled and a detailed set of sampling instructions.

Because it is impossible to establish a complete and stable universe for this type of study, a method somewhat different to the normal random selection procedure had to be employed to ensure randomisation of the sampling. The sampling procedure required the fieldworker to divide the relevant study area into four parts or sections (see figure 9). The questionnaires were allocated as evenly as possible between the four sections, i.e., the fieldworker was instructed to try to complete twenty-five questionnaires in each section of the study area.

To ensure further randomisation, each section was sampled twice to avoid directional bias in selection. In each section two street intersections in a central position were chosen. At each of the two street intersections, the fieldworker began sampling the street on his or her left, when facing towards Durban's central business district. The first three dwellings on the left hand side (the right hand side was sampled later) of the chosen street were ignored and from then on every second house was chosen until a quarter of the questionnaires allocated to that section had been completed. The fieldworker was then instructed to return to the intersection and begin completing a further quarter of the questionnaires by interviewing households on the right-hand side of the chosen street. If there were insufficient houses to enable the fieldworker to complete the quota in that street, the fieldworker was to return to the intersection and begin sampling directly opposite

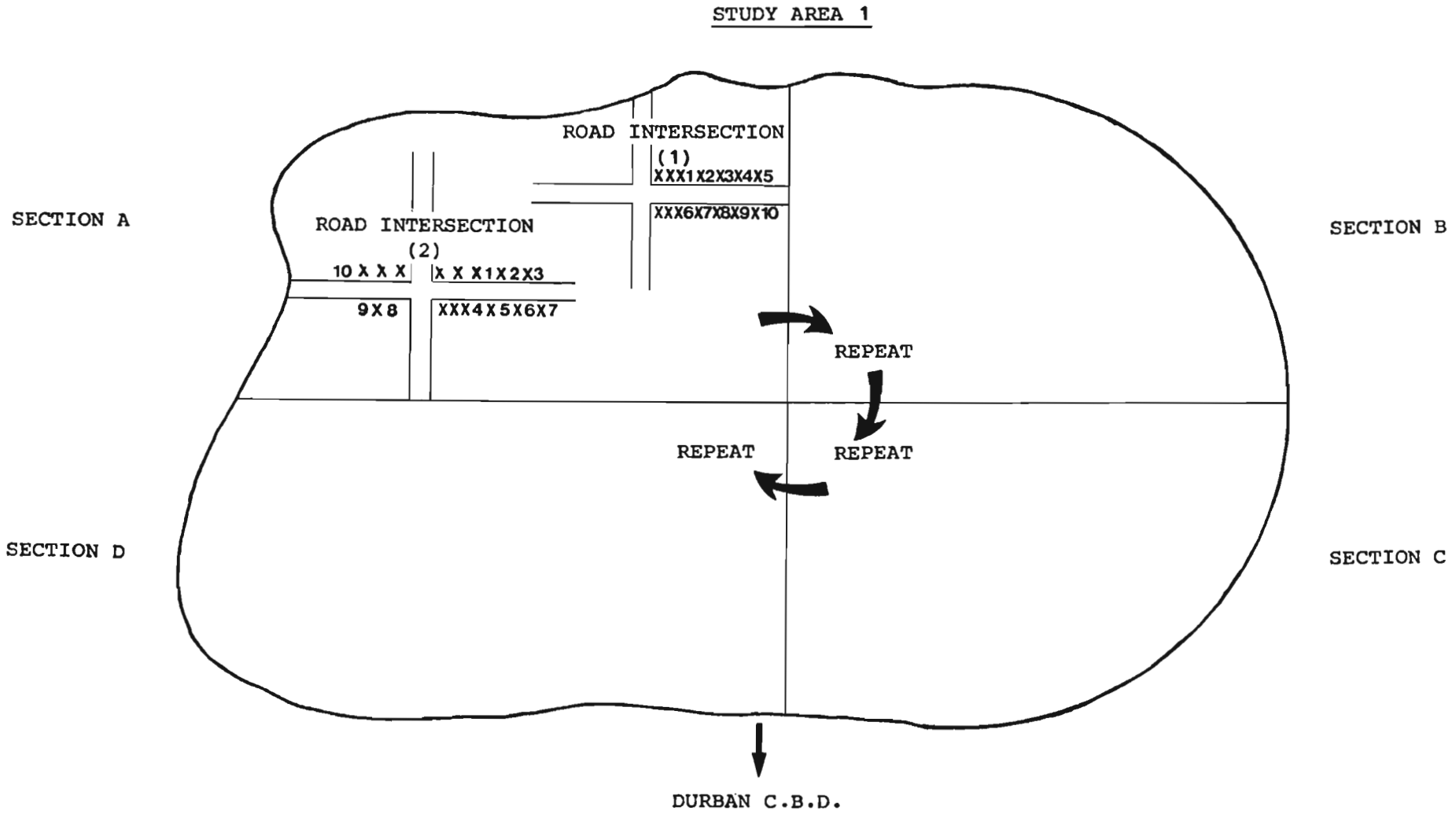


FIGURE 9 : AN ILLUSTRATION OF THE SAMPLING PROCEDURE

the one initially chosen, in the same way, until the requisite number of questionnaires had been completed. The same procedure was repeated for the second central street intersection. If any of the dwelling units which were required to be sampled, consisted of blocks of flats, fieldworkers were instructed to interview a maximum of three households per block. At each dwelling unit the adult member of the household, to be interviewed, was randomly selected using a Kish table which was attached to each questionnaire. If the randomly selected individual was unavailable, the fieldworker moved on to the next household to be interviewed and repeated the procedure. For the purpose of this study an adult was considered to be any individual who was fifteen years of age or older, since by the age of fifteen an individual has gained some measure of independence in the sense that he or she is probably able to define and pursue his or her own recreation interests rather than those of his or her parents or the family in general (Carlson et al, 1979).

Where possible, fieldworkers of the same population group as the residents of the study area were employed to avoid language and other difficulties. Substantial respondent resistance was encountered in the two white study areas. Respondents, chosen according to the procedure outlined above, seemed to take offence at being asked by strangers to give up an hour of their time to complete the questionnaire and simply refused to let the fieldworkers get any further than an introduction. A somewhat different procedure therefore had to be adopted in these areas. Chosen respondents were contacted by telephone before hand and once the purpose of the study had been explained to them and they had agreed to co-operate an interview time suitable to them was arranged. On completing the interview, the respondents were asked to contact other potential respondents in their street, to tell them about the interview first hand and if possible encourage them to agree to participate

in the survey when contacted. This procedure, while successful, proved to be very time consuming.

Respondent resistance was also encountered in the coloured study areas of Austerville and Sparks Estate, at the beginning of the fieldwork phase. This was a time of social unrest in South Africa, especially in the coloured residential areas and residents in the selected study areas refused to have anything to do with the questionnaire when approached by the fieldworkers. The fieldworkers were also, understandably, reluctant to carry out the interview in this unfavourable social climate. The fieldwork in the coloured areas of Austerville and Sparks Estate had to therefore be delayed and was only completed at the end of 1980. The fieldwork problems encountered with both the white and coloured study groups were unforseen and resulted in an undesirable, yet unavoidable, lengthening of the data collection phase.

## 3.3 OVERVIEW

The aim of this chapter has been to present and discuss the methodology which underpins the study. The questionnaire used in the study and the fieldwork procedure have been discussed in detail, as have the particular methodological issues pertaining to activity space data collection.

As far as a general methodology is concerned, this study followed the survey-research approach which advocates the collection of data through structured interviews from a sample of subjects. More specifically, the study made use of a 'check list' type approach which involved the pre-categorisation of the specific issues which the study aimed to address, e.g., recreation need and recreation facility provision. The data deriving from these interviews with the study subjects are presented and analysed in the following three chapters.

# CHAPTER FOUR

## SOCIO-ECONOMIC CHARACTERISTICS OF THE STUDY GROUPS

The overall aim of this dissertation, as indicated in section 2.5, was to provide a 'picture' of recreation activity spaces as a basis for assessing some aspects of recreation needs and welfare in Metropolitan Durban. In order to do this in an adequate way requires, however, more than a direct presentation of spatial movement patterns. As the theory of needs and the framework of spatial welfare suggest, spatial forms are expressions of social (both individual and group) structures and strictures. Gregory has expressed the idea succinctly:

> ...Spatial structures are implicated in social structures and each has to be theorised with the other (1978, 172).

It is the aim in this and the following chapter to consider some of the critical social characteristics and patterns associated with the respondents in the survey reported here. These characteristics and patterns will provide, then, an understanding of the factors and forces which, along with those we specifically wish to analyse (i.e., socio-political and associated spatial injustices), have led to the activity space patterns presented in Chapter Six.

### 4.1 AGE AND RECREATION

Age is acknowledged by most recreation theorists as being a factor of some importance affecting recreation in terms of the level and type of involvement. Theorists differ, however, with regard to the importance they attach to this factor.

Neulinger (1974) posits that age influences an individual's recreation in two possible ways -- first, in terms of his or her life history and secondly, in terms of the external factors impinging on the individual:

> One reflects the person's life history, the time and place of his growing up, his particular development and the state of his physical and mental well-being. The other relates to external factors that are imposed upon the person and about which he has little control. Examples of the latter type are the legal drinking age, age limitations for drivers licenses, hunting licenses, mandatory retirement ages, etc. (in Murphy, 1981, 140).

Kaplan (1975) includes the latter type of age influence in his age classification. He emphasises that such age distinctions are dictated by custom or tradition:

> ...Custom or tradition still dictate the proper age for certain forms of leisure. So young people are barred by law from some motion pictures and by social "habit" from playing serious bridge (1975, 90).

Kaplan (1975) points to a further age distinction in recreation, that pertaining to skills and physical energy. He argues that certain recreation activities do require some kinds of skills which develop with age, such as chess or music. Other researchers such as Schmitz, Scherzer and Stodel, however, do not attach much importance to chronological age, arguing that "social variables, personality traits and health status seem to influence greatly, the use of leisure time." (in Murphy, 1981, 140).

As far as the South African context is concerned, the Human Sciences Research Council (H.S.R.C.) Report on "Sport in the R.S.A." (1982) has the following to say concerning age and recreation:

> Because participation in sport occurs especially among the younger members of a population, the total number of participants in a population will be considerably influenced by the age structure of the population (H.S.R.C., 1982, 42)

The age structure of the seven study groups in this study is shown in table 2.[1] The pattern of age distribution shows the study groups to be generally youthful, with all study areas having more than 50% of respondents under the age of forty.

TABLE 2 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY AGE STRUCTURE, FOR THE STUDY GROUPS

| STUDY GROUPS / AGE GROUPS (IN YEARS) | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| 15 - 19 | 28 | 14 | 13 | 8 | 10 | 6 | 22 |
| 20 - 29 | 38 | 39 | 38 | 31 | 13 | 14 | 26 |
| 30 - 39 | 21 | 20 | 21 | 30 | 34 | 41 | 26 |
| 40 - 49 | 11 | 19 | 21 | 19 | 23 | 31 | 15 |
| 50 - 64 | 1 | 7 | 5 | 10 | 11 | 6 | 8 |
| 65 + | 1 | 1 | 2 | 2 | 9 | 2 | 2 |
| N | 100 | 100 | 100 | 100 | 100 | 100 | 200 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $r_s$ SPEARMAN'S RANK CORRELATION COEFFICIENT $\alpha = 0,05$ | 0,77 | | 0,93 | | 0,99 | | |

1. In all tables, figures represent rounded percentages and do not always, therefore, add up to exactly 100%.

When comparing the age structure of the two study groups within each population group, one finds that they follow a very similar pattern of distribution. The age distribution of the two white study areas of Sea View and Westville are most similar ($r_s$ = 0,99). The two Indian areas of Westcliff and Reservoir Hills also have age distribution patterns which closely resemble each other ($r_s$ = 0,93) as do the coloured study groups of Austerville and Sparks Estate ($r_s$ = 0,77).

A comparison of the patterns of age distribution of the population groups reveals them to be similar except for the white population group which has markedly fewer people under the age of thirty years. A possible explanation for this could be the fact that the white population is in a different stage of demographic development, having already experienced the 'baby boom' and unlike the black and coloured population groups, now has a falling birth rate (South Africa, 1984). 1*

In this study, the age distribution of the main recreation activities for each study group were correlated ($r_s$) with the age distributions of the corresponding study group samples as a whole, in order to establish whether any significent age trends existed within any of the study groups. These data are summarised in table 3.[1] In general,

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* Numerals in the right margin of the text refer to the relevant tables in appendix 2.

1. The presentation of data in this table allows a number of useful comparisons. First, one can clearly see the major recreation activities which emerged for all the study groups. Secondly, one can make inter-group age distribution comparisons for common activities. For example, 15% of Austerville respondents who went visiting were between the ages of 15 and 19, whereas, 19% of 'visiting' Sparks Estate respondents fell into this age category. Thirdly, within each study group, one can compare the age distributions of respondents for the various recreation activities undertaken in the study group.

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE-IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS → / AGE (IN YEARS) | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWA MASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWA MASHU |
| 15 - 19 | 15 | 19 | 14 | 7 | 13 | 1 | 29 | 31 | 18 | 14 | 11 | 24 | 10 | 42 | 29 | 12 | 12 | 7 | 11 | 5 | 4 | 14 | 6 | 19 | 26 | 13 | 6 | 8 | 2 | 26 | 20 | 24 | 18 | 3 | 20 | 11 | 3 | 8 | 8 | 15 | 16 |
| 20 - 29 | 35 | 52 | 39 | 34 | 14 | 14 | 27 | 44 | 45 | 42 | 36 | 34 | 17 | 48 | 29 | 40 | 37 | 34 | 13 | 14 | 46 | 44 | 46 | 30 | 27 | 44 | 26 | 10 | 12 | 43 | 54 | 67 | 44 | 41 | 17 | 13 | 15 | 8 | 19 | 26 | 18 |
| 30 - 39 | 35 | 19 | 21 | 30 | 30 | 46 | 24 | 15 | 23 | 21 | 28 | 17 | 40 | 9 | 27 | 21 | 22 | 29 | 34 | 39 | 42 | 23 | 20 | 26 | 28 | 9 | 36 | 34 | 37 | 20 | 23 | 5 | 21 | 31 | 31 | 39 | 40 | 68 | 53 | 37 | 28 |
| 40 - 49 | 15 | 6 | 18 | 20 | 23 | 31 | 16 | 6 | 4 | 16 | 15 | 17 | 29 | 1 | 12 | 24 | 23 | 19 | 22 | 34 | 4 | 14 | 17 | 15 | 11 | 24 | 26 | 25 | 42 | 9 | 3 | 5 | 15 | 10 | 23 | 17 | 33 | 12 | 17 | 19 | 24 |
| 50 - 64 | 0 | 3 | 6 | 6 | 13 | 6 | 4 | 2 | 7 | 5 | 9 | 3 | 4 | 0 | 2 | 3 | 5 | 10 | 9 | 6 | 4 | 5 | 9 | 11 | 7 | 9 | 4 | 13 | 6 | 3 | 0 | 0 | 3 | 10 | 6 | 11 | 8 | 4 | 3 | 4 | 9 |
| 65+ | 0 | 0 | 2 | 3 | 6 | 1 | 0 | 2 | 2 | 1 | 1 | 3 | 0 | 0 | 2 | 0 | 1 | 1 | 10 | 2 | 0 | 0 | 3 | 0 | 2 | 2 | 2 | 9 | 2 | 0 | 0 | 0 | 0 | 3 | 3 | 9 | 1 | 0 | 0 | 0 | 4 |
| N | 26 | 32 | 62 | 70 | 77 | 70 | 45 | 54 | 44 | 76 | 75 | 29 | 48 | 90 | 59 | 58 | 82 | 84 | 90 | 83 | 24 | 43 | 35 | 27 | 109 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 67 |
| $r_s$ SPEARMAN'S RANK CORRELATION COEFFICIENT | ,86 | ,90 | ,99 | ,99 | ,99 | ,96 | ,89 | 1 | ,83 | ,99 | ,99 | ,37 | ,98 | ,89 | ,98 | ,94 | ,99 | 1 | ,83 | ,98 | ,79 | ,99 | ,96 | ,83 | ,99 | ,84 | ,84 | ,89 | ,96 | ,98 | ,93 | ,81 | ,90 | ,97 | ,83 | ,99 | ,98 | ,90 | ,93 | ,93 | ,79 |

$\alpha = 0,05$ TABLE 3 : PERCENTAGE DISTRIBUTION OF MAIN RECREATION ACTIVITIES BY AGE, FOR THE STUDY GROUPS

age did not emerge as a significant factor in the main recreation activities of the study groups. In the study groups of Sparks Estate (coloured), Westcliff (Indian), and Westville (white) no significant age trends were evident in their recreation activities.

In Sea View (white) and Reservoir Hills (Indian) age was a factor in only one of the main recreation activities, namely cinema-going and dancing respectively. In the Sea View sample going to the cinema showed a marked age trend ($r_s$ = 0,37) with the younger people (age groups 15-19 and 20-29 years) participating in this activity. In the Reservoir Hills sample dancing showed a significant age trend with the age groups 15-19 years and especially 20-29 years predominating. KwaMashu (the black study group) exhibited a slight age trend in only church-going activity, where the greatest participation came from the 20-29 and 40-49 age groups.

From the above results it appears, then, that age -- while playing some role in a few recreation activities -- is not a key variable with regard to the recreation behaviour of the groups studied. These results lend some support to the view of Schmitz, Scherzer and Strodel, mentioned earlier, that age is not a crucial factor in the use of leisure time except in the case of those 'passive' recreation pursuits which have culturally defined age-specific characters (such as 'pop' dancing and cinema-going).

## 4.2 GENDER AND RECREATION

The female-male element is easily observed as a factor that can influence a wide range of leisure behaviour. It is, however, generally agreed by theorists that, while some gender differences in recreation may be attributed to biological or

physical factors, most of these differences result from social custom and attitudes (Kaplan, 1975; Patmore, 1970; Chapin, 1974).

Cheek and Burch comment that:

> ...While sexual identity like age, has a biological component, its reality in society emerges only through its social component. Every individual member of a social group similarly is also a possessor of a sexual identity (in Murphy, 1981, 142).

From the cradle in our society, play provides a medium for socialisation into what are considered to be appropriate gender roles (Kraus, 1978). Boys are given cars, guns and cowboy suits to play with, while girls are encouraged to play with toys appropriate to their future roles as mother and housekeeper. Kraus (1978) points out that not only are the kinds of play which boys and girls indulge in different but, importantly, so too are the status levels of such games. For example, boys are doctors while girls are nurses. Such play, Kraus (1978) argues, reflects realistically the prevailing gender roles in our society. In Western society, while exceptions do exist, the general norm has been that men have held higher status and better paying jobs and women have been assigned more home-centred responsibilities. These different roles, engrained in childhood, lead to differing work patterns and in turn to different free-time patterns. They can also, and in many cases do, affect the meaning and function of recreation for the sexes.

Kraus (1978) states that early gender-stereotyped play activities are a form of brainwashing which ultimately restricts both men and women:

> ...Little boys who are forced to play at only "masculine" activities are also being deprived. For them to be creative, to enjoy artistic activities, to cook, to sew, or to engage in other expressive forms of play is seen as inappropriate. (1978, 80).

That such associations still exist is evident in the attitude of many young men toward studying ballet, in spite of the obvious athleticism which is necessary in the practice of this art form (Kaplan, 1975).

Gender attitudes are particularly evident when it comes to sport. In Western society, until fairly recently, there has been widespread discrimination against women in sport. While it is perhaps understandable that women may have to be prevented from taking part in those contact sports which require strength and size (and this point is debateable), such discrimination against women, as does exist in sport, reflects a more extensive form of social prejudice and desire to keep certain sports as male preserves (Kraus, 1978).

In South African sport, amongst the white population, the main "bastion of male supremacy" (Arens, 1974) is rugby, whereas in the other population groups it tends to be soccer. In the H.S.R.C.'s sports report (1982) it was found that, in general, men in South Africa were more involved in sport than were women. This trend was found to be more prevalent in the 'non-white' than in the white subjects. The researchers attribute this difference in sports participation, in part, to the fact that women are limited in their participation in sport during their reproductive years. They argue further that, because of the high fertility rate among 'non-white' population groups, this phenomenon is a greater influencing factor than in the case with white women. While this biological

factor may indeed play some role in gender differentiation in sport, it is surely a minor factor, with the more important factor being the very sharp delineation between the roles of men and women in South African society.

Before discussing the gender differences in recreation activities of the study groups in this study, it is first necessary to discuss the overall gender structure of the study samples.

The pattern of the gender structure of the study groups (see table 4 below) shows some variation with a slightly higher proportion of females (69%) in the Indian area of Reservoir Hills and a higher proportion of male respondents (60%) in the white area of Westville, than in the rest of the study areas.

TABLE 4 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY GENDER STRUCTURE, FOR THE STUDY GROUPS

| STUDY GROUPS / GENDER | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| MALE | 48 | 55 | 45 | 31 | 40 | 60 | 47 |
| FEMALE | 52 | 45 | 55 | 69 | 60 | 40 | 53 |
| N | 100 | 100 | 100 | 100 | 100 | 100 | 200 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

When one considers the gender structure by population group, one finds that the coloured, black and white groups have a very even distribution of respondents between the sexes, with the latter population group having the most even distribution 2

(50% - males and 50% - females). The Indian population group has a higher proportion of female respondents. The reason for this is, however, unclear, one possible explanation being fieldworker bias in the application of the Kish method of respondents selection in the area of Reservoir Hills.

With regard to the main recreation activities of the study groups, the most marked gender differences in participation occurred, as suggested in the literature, in sports activities such as soccer, tennis and squash. The coloured, Indian and black study groups exhibited marked gender differences in soccer activity. In the Austerville study group (see table 5), 88% of those engaged in soccer activity were men and of these, 38% actually played the sport (see 3
table 3, appendix 2) and 62% were spectators. In the Reservoir Hills sample, 56% of those involved in soccer were men (see table 5), with 33% of these men being players of the sport, 47% spectators and 20% both players and spectators. Eighty-nine percent of soccer participants in Westcliff were men (see table 5) and of these, 52% were spectators and 48% players.

The most marked gender differences as far as participation in soccer activity was concerned, occurred in the KwaMashu sample, where 71% were men (see table 5) and of whom 83% were spectators and 17% players.

In the coloured, Indian and black study groups all women involved in soccer activity (namely Austerville - 13%; Westcliff - 11%; and KwaMashu - 29%) were spectators. Not one woman actually played the game -- evidence that playing soccer appears to be exclusively a male preserve in the above population groups.

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE - IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS → / SEX | AUSTERVILLE | | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWA MASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWA MASHU |
| MALE | 42 | 38 | 55 | 31 | 39 | 61 | 33 | 48 | 50 | 46 | 33 | 52 | 73 | 47 | 47 | 55 | 44 | 31 | 42 | 64 | 88 | 65 | 89 | 56 | 71 | 46 | 26 | 32 | 56 | 46 | 46 | 62 | 44 | 28 | 43 | 41 | 63 | 23 | 56 | 74 | 18 |
| FEMALE | 58 | 62 | 45 | 69 | 61 | 39 | 67 | 52 | 50 | 54 | 67 | 48 | 27 | 53 | 53 | 45 | 56 | 69 | 58 | 36 | 13 | 35 | 11 | 44 | 29 | 54 | 74 | 68 | 44 | 54 | 54 | 38 | 56 | 72 | 57 | 59 | 37 | 77 | 44 | 26 | 82 |
| N | 26 | 32 | 62 | 70 | 77 | 70 | 45 | 54 | 44 | 76 | 75 | 29 | 48 | 90 | 59 | 58 | 82 | 84 | 90 | 83 | 24 | 43 | 35 | 27 | 109 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 67 |

TABLE 5 : PERCENTAGE DISTRIBUTION OF MAIN RECREATION ACTIVITIES BY GENDER, FOR THE STUDY GROUPS

The other activities, in the same study groups, in which fairly marked gender differences were evident, were visiting in the Sparks Estate sample; dancing in the Westvliff study group; and church-going in the KwaMashu study group (see table 5). In the Sparks Estate sample, women dominated visiting activity (see table 5). More men (62%) than women (38%) went dancing in the Westcliff study group. In this case, most of those (both men and women) involved in dancing activity came from the age groups 15-19 and 20-29 years. A possible reason for a greater number of men being involved in dancing activity could be that, generally speaking, in the Indian community, women (and especially young women) tend to be very protected. They are often subject to strict parental control and are not allowed the same freedom which young men enjoy. In many cases, women are not allowed out, especially not to participate in activities such as dancing, unless they are accompanied by approved family members or friends.

The activities which exhibited gender-based differences in participation in the white study groups were tennis in Sea View and cinema-going and squash in the Westville group (see table 5). In the latter group, more men participated in both cinema-going (73%) and squash (74%) activity. Squash has, over the last decade, increased in popularity amongst male 'white-collar' workers (and Westville is predominantly a 'white-collar' residential area). This game's popularity arises from the fact that it provides strenuous exercise fairly quickly -- a squash game usually lasts a relatively short period (half an hour to an hour) -- thus allowing men to 'fit in a game' during their lunch hour, or indeed, before or after work.

In the Sea View study group, more women (77% - see table 5) participated in tennis than did men (23%). Tennis has, over the last century, become a sport in which female participation has increased tremendously.

White female interest in sport was fired, according to Stella Marrgetson, in the 1880's and 90's by the Cambridge tennis parties. She states that:

> Langourous croqet gave way to a passion for tennis which brought the sexes together on the courts in a wave of exciting activity. (in Patmore, 1970, 47).

Patmore (1970, 47) comments that "today tennis is a sport which among adults is played as much by men as women, but by more girls than boys at school". It would seem that, in white society, tennis is traditionally far less of a male preserve than other active sports.

In summary then, gender-based differences in recreation activity participation occurred, for the most part, and quite predictably, in sports activities such as soccer in the coloured, Indian and black study groups and squash in the Westville group. These sports were dominated by men. The only exception to this trend occurred in Sea View, where more women tended to participate in tennis.

## 4.3 OCCUPATION AND RECREATION

Roberts (1970) observes that several theorists have focused their attention on the role of recreation in society and its relationship to occupational positions and the economy. He cites three ways in which this relationship has been explained by various writers. In Karl Marx's view, leisure in the

Capitalist system was a means whereby the labour force could rejuvenate itself. Leisure was seen as a Capitalist ploy whereby labour could be refreshed in order to be re-exploited by the system. Roberts argues that subsequent theorists were of the opinion that the interests and values generated in the work situation determined recreation behaviour to a large extent (e.g., Neumeyer and Neumeyer, 1958). For a third group of writers, Roberts argues, recreation is seen to offer an opportunity to the individual to compensate for the frustrations and monotony he or she has to endure in the work situation (e.g., Parker, 1969).

Occupations, it is argued by some theorists, appear to have a strong influence on recreation (Gerstl, in Kraus, 1978; Wilensky, 1970). Some of the research in this area indicates that, in general, the working classes tend to indulge in passive recreation such as watching television and spectator events. The middle classes tend to spend their recreation time more actively participating in sport, social clubs and generally those recreation pursuits which demand some mental or physical activity (Chapin, 1974).

Gerstl (in Kraus, 1978) conducted a study of the influence on recreation behaviour of three upper-middle class occupations -- dentistry, advertising and academic life. He found distinct differences in both the amount of leisure time available to each group and the kinds of recreation activities they indulged in. Professors tended to participate in cultural activities such as theatre and concerts; dentists were active in fishing and hunting; whereas, golf and tennis were high on the list of advertising men's recreation activities. Gerstl

argues that certain characteristics of each profession were seen to be relevant to recreational choices. In the case of dentists, their interest in fishing and hunting, suggests Gerstl, points to the need for a change from their physically confining and tension-filled job, whereas advertising men's interest in golf and tennis may be connected to their need to conduct business on the greens or in the clubhouse.

Gerstl (in Kraus, 1978) concludes that the differing recreation pursuits amongst different occupations within a particular prestige level indicate that:

> the crucial explanatory factor is that of the occupational milieu - consisting of the setting of the work situation, the nature of the work performed, and the norms derived from occupational reference groups (in Kraus, 1978, 69).

Cunningham et al (in Murphy, 1981) ascribe a minor role to occupation as an influencing factor in recreation. These researchers found few significant relationships between occupational groups and participation in active recreation activities. They suggest that there is a need for community recreation authorities to make various types of recreation opportunities available to all occupational groups.

Table 6 shows the various occupations held within each study group, in this study. The kind of occupations which respondents had varied quite considerably from study group to study group. Each study group will, therefore, first be described separately in terms of occupation type.

In the coloured study group of Austerville the major occupation categories were 'production, transport and labourer' (36% of respondents fell into this category - see table 6), 'not economically employed' (30% of

respondents) and 'professional, technical' (21% of respondents). Fifty-two percent of those in the 'not economically employed category were students or scholars, 41% were housewives and 3% were unemployed at the time of the survey, with a further 3% being retired people (see table 4, appendix 2). A relatively low proportion of respondents in Austerville occupied 'clerical', 'sales', 'administrative and managerial' and 'service' positions (see table 6).

TABLE 6 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY OCCUPATION, FOR THE STUDY GROUPS

| STUDY GROUPS / OCCUPATION | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| PROFESSIONAL, TECHNICAL | 21 | 18 | 5 | 21 | 7 | 33 | 6 |
| ADMINISTRATIVE, MANAGERIAL | 1 | 1 | 0 | 2 | 3 | 14 | 0 |
| CLERICAL | 4 | 13 | 12 | 5 | 13 | 7 | 4 |
| SALES | 1 | 4 | 10 | 2 | 2 | 8 | 4 |
| SERVICES | 1 | 1 | 2 | 1 | 0 | 1 | 22 |
| PRODUCTION, LABOURER | 36 | 37 | 34 | 8 | 11 | 2 | 15 |
| NOT ECONOMICALLY EMPLOYED | 30 | 24 | 36 | 55 | 62 | 32 | 47 |
| OTHER | 3 | 1 | 1 | 5 | 2 | 3 | 2 |
| N | 98 | 100 | 100 | 95 | 100 | 100 | 200 |
| MISSING DATA % | 2 | 0 | 0 | 5 | 0 | 0 | 0 |

In the Sparks Estate study area, table 6 shows that the same three occupation categories that dominated in Austerville, did so in this area as well. Thirty-seven percent of respondents occupied 'production and labourer' positions, 18% held 'professional and technical' positions and 24% were 'not economically employed'. The latter category was made up of housewives (58%), scholars and students (38%) and unemployed people (4%).

In the Indian area of Westcliff, most of the respondents fell into the 'not economically employed' (36%) and the 'production and labourer' (34%) categories (see table 6). Sixty-four percent of those in the 'not economically employed' category were housewives, 17% were students/scholars, 14% were unemployed and 6% were retired. Very few respondents in Westcliff occupied 'professional and technical', 'service', and 'administrative and managerial' positions (see table 6).

Fifty-five percent of respondents in the Indian study area of Reservoir Hills fell into the 'not economically employed' category (see table 6) which included housewives (67% - see table 4, appendix 2), scholars and students (24%), retired (5%) and unemployed (4%) people. Twenty-one percent of Reservoir Hills respondents held 'professional and technical' positions, while very few people (ranging from 1% to 8%) held 'administrative', 'clerical', 'sales', 'service' and 'production and labourer' type jobs (see table 6).

The 'not economically employed' category was the dominant category (62%) in the Sea View study area (see table 6). Seventy-one percent of those in this category were housewives, 23% were scholars and students and 6% were retired people. Thirteen percent of respondents in this area held 'clerical' positions, with very few respondents (ranging from 2% to 11%) falling into the remaining occupation categories (see table 6).

In the Westville study group, the two major occupation categories were the 'professional, technical' (33%) and the 'not economically employed' (32%) categories (see table 6). Seventy-two percent of those in the latter category were housewives and 28% were scholars and students. The 'administrative and managerial' occupation category was

the next major category, with 14% of Westville respondents holding this type of position. Few people (ranging from 1% to 8%) held 'clerical', 'sales', 'production and labourer' and 'service' type jobs (see table 6).

Forty-seven percent of respondents in the KwaMashu study group fell into the 'not economically employed' category (see table 6), with 37% of respondents in this category being unemployed, 29% being students and scholars, 28% housewives and 6% retired people. The next two dominant occupation categories were the 'production and labourer' (15%) and the 'services' (22%) categories (see table 6). Very few respondents held 'professional and technical' (6%), 'clerical' (4%) and 'sales' (4%) positions.

In general, occupation did not appear to be a determining factor in any of the study groups' recreation patterns; however, as can be seen from table 7, a few activities did exhibit slight occupational biases. The 'production and labourer' occupational category had slightly greater representation in soccer activity than did other occupation categories in the study groups of Austerville (54% - see table 7), Sparks Estate (47%) and Westcliff (40%). As stated earlier in this chapter, most of those participating in soccer activity in the abovementioned study groups were male spectators of the game. This perhaps endorses Roberts' (1970) contention, stated earlier, that manual workers tended to favour less arduous recreation such as spectator events.

In the Westcliff study group, dancing tended to be slightly more the preserve of those employed in the 'clerical' and 'sales' jobs. Westcliff is essentially a low income housing scheme area, with most of those who are employed falling into

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE-IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS → / OCCUPATION | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWA MASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWA MASHU |
| PROFESSIONAL, TECHNICAL | 22 | 22 | 6 | 24 | 7 | 36 | 4 | 17 | 14 | 7 | 19 | 10 | 40 | 8 | 22 | 22 | 6 | 22 | 7 | 31 | 17 | 23 | 6 | 24 | 6 | 11 | 21 | 7 | 40 | 24 | 13 | 10 | 6 | 25 | 9 | 7 | 33 | 4 | 33 | 33 | 6 |
| ADMINISTRATIVE, MANAGERIAL | 2 | 0 | 0 | 2 | 4 | 16 | 0 | 0 | 2 | 0 | 3 | 7 | 15 | 0 | 2 | 0 | 0 | 2 | 2 | 16 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 15 | 0 | 0 | 0 | 0 | 4 | 6 | 4 | 17 | 12 | 14 | 15 | 0 |
| CLERICAL | 0 | 16 | 13 | 6 | 14 | 7 | 2 | 7 | 18 | 13 | 6 | 10 | 6 | 2 | 0 | 12 | 13 | 6 | 13 | 8 | 4 | 7 | 14 | 8 | 5 | 13 | 5 | 13 | 10 | 3 | 26 | 19 | 9 | 4 | 9 | 13 | 6 | 4 | 0 | 7 | 0 |
| SALES | 5 | 3 | 13 | 2 | 1 | 9 | 0 | 2 | 5 | 7 | 3 | 0 | 6 | 4 | 5 | 2 | 11 | 2 | 2 | 10 | 8 | 2 | 14 | 4 | 6 | 11 | 5 | 3 | 4 | 3 | 8 | 19 | 12 | 4 | 3 | 2 | 10 | 0 | 8 | 7 | 0 |
| SERVICES | 2 | 0 | 2 | 2 | 0 | 1 | 20 | 0 | 2 | 3 | 1 | 0 | 0 | 22 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 2 | 6 | 0 | 17 | 2 | 2 | 0 | 2 | 3 | 3 | 5 | 0 | 4 | 0 | 0 | 1 | 0 | 3 | 0 | 22 |
| PRODUCTION, LABOURER | 31 | 22 | 37 | 9 | 8 | 3 | 18 | 39 | 32 | 33 | 9 | 7 | 2 | 8 | 31 | 40 | 33 | 7 | 12 | 2 | 54 | 47 | 40 | 12 | 23 | 28 | 5 | 7 | 0 | 35 | 31 | 29 | 35 | 11 | 12 | 11 | 37 | 8 | 3 | 4 | 13 |
| NOT ECONOMICALLY EMPLOYED | 33 | 34 | 29 | 52 | 63 | 27 | 53 | 33 | 27 | 37 | 53 | 59 | 25 | 56 | 33 | 21 | 33 | 53 | 61 | 28 | 8 | 16 | 17 | 40 | 41 | 35 | 56 | 66 | 27 | 29 | 21 | 19 | 35 | 46 | 63 | 59 | 27 | 72 | 89 | 26 | 55 |
| OTHER | 5 | 3 | 0 | 5 | 3 | 1 | 2 | 2 | 0 | 1 | 7 | 7 | 6 | 0 | 5 | 2 | 1 | 5 | 2 | 4 | 4 | 0 | 3 | 12 | 3 | 0 | 7 | 0 | 2 | 3 | 0 | 0 | 3 | 4 | 0 | 4 | 3 | 0 | 0 | 7 | 3 |
| N | 26 | 32 | 62 | 70 | 77 | 70 | 45 | 54 | 44 | 76 | 75 | 29 | 48 | 90 | 59 | 58 | 82 | 84 | 90 | | 24 | 43 | 35 | 27 | 109 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 67 |

TABLE 7 : PERCENTAGE DISTRIBUTION OF MAIN RECREATION ACTIVITIES BY OCCUPATION, FOR THE STUDY GROUPS

the 'production and labourer' category. It would seem plausible that those Westcliff residents employed in the 'clerical' and 'sales' positions would be more likely to have discretionary income to spend on activities such as dancing.

Hobby activity tended to be indulged in more by the 'not economically employed' in Reservoir Hills. As stated earlier, this occupation category was comprised mostly of women who were housewives. The study showed that in Reservoir Hills, and indeed, in all the other study groups, hobby activity tended to be dominated by women. Similarly, in Sea View, the 'not economically employed' category was quite marked in tennis participation, as the latter activity was dominated by women who were housewives. In Westville, no occupation related trends appeared to emerge. In summary then, except for a few rather minor cases, mentioned above, occupation did not appear to have a strong influence on recreation in the study groups.

## 4.4 MARITAL STATUS, FAMILY SIZE AND RECREATION

Few studies focus exclusively on either marital status or family size in relation to recreation behaviour. The emphasis in the literature appears to be on the family as a unit and on stage in the life cycle and the effect which these two variables have on recreation.

It seems generally agreed that the family unit has an influence on the kinds of recreation activities which family members choose to participate in. Murphy states that:

> The family, the primary source of an individual's socialisation, provides an important setting in which the attitudes of children are developed toward major institutions, including leisure (1981, 119).

Roberts (1970) also stresses the importance of the family in recreation behaviour:

> Despite the growth that has taken place in large-scale organisations catering specifically for leisure interests, the family has remained the most popular group in which people choose to spend their free-time. For this reason, the roles that individuals play within the family have a much stronger influence upon the structure of their leisure than any of the social roles that they play in wider society (1970, 41).

As far as marital status is concerned, Orthner (in Murphy, 1981) posits that people participate in recreation activities which are compatible with the kind of interaction they prefer in their marriages and furthermore that these activities, in turn, reinforce this marital pattern. Orthner found that:

> In general...the greater the frequency of interaction in the leisure activities selected by the respondents, the greater the shared communication in marriage (in Kraus, 1978, 83).

Murphy (1981) points out, however, that although the family does serve as the primary staging area for a substantial portion of leisure activities, its effect on adolescents and single older members is much less than on other members of families. These groups, he argues, share less of the 'home-centred' family life of their parents and tend to be more influenced by their peer group when it comes to the choice of recreation activities.

It is quite clear that married people have far more responsibilities generally than do single people. This fact influences recreation behaviour in that married people have less time and opportunity to indulge in recreation

activities which they may find personally fulfiling (Murphy, 1981). Mothers and fathers often have to forgo those activities which they particularly enjoy for those which the family, as a whole, enjoy.

One of the few studies relating to household size and recreation is that of Wheeler and Stutz (1971) who focused on household size in relation to social trips, such as visiting family and friends. They found that larger households, especially those in the lower income brackets, had a lower proportion of social trips than did smaller households. Wheeler and Stutz (1971) concluded that larger families perhaps substitute more in-home activity for social trips.

Table 8 summarises the marital status of all respondents in this study. Most of the study groups had a higher proportion of married than single respondents. Of these groups Westville had the highest proportion of married people (85%) and KwaMashu the lowest proportion (49%). Sparks Estate and Westcliff had 66% and 62% married respondents respectively, and Reservoir Hills and Sea View had slightly higher proportions of married people -- namely, 70% and 76% respectively.

TABLE 8 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY MARITAL STATUS, FOR THE STUDY GROUPS

| STUDY GROUPS / MARITAL STATUS | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| SINGLE | 62 | 34 | 38 | 30 | 24 | 15 | 51 |
| MARRIED | 38 | 66 | 62 | 70 | 76 | 85 | 49 |
| N | 98 | 98 | 100 | 100 | 96 | 94 | 198 |
| MISSING DATA % | 2 | 2 | 0 | 0 | 4 | 6 | 1 |

The coloured study area of Austerville differed from the other six study areas in having a higher proportion of single respondents (62%) than married respondents (38%).

The pattern of nuclear family size was as to be expected, with the 'low income' areas of most of the population groups having, on average, bigger nuclear families than the 'higher income' areas (see table 9). In the Indian low income area of Westcliff, 98% of respondents lived in nuclear families consisting of more than three people and as many as 57% had seven or more persons in their nuclear family units. The KwaMashu sample was the next highest in terms of family size, with 89% of respondents living in families consisting of more than three people and just under half (49%) of the sample in families of seven or more people. Westcliff had a mean nuclear family size of 6,1 people (see table 9), while KwaMashu had a mean nuclear family size of 5,7 people. The two coloured areas had very similar nuclear family sizes, with Austerville having slightly bigger nuclear families (mean family size of 5,0) than Sparks Estate (mean family size of 4,8).

The more wealthy Indian area of Reservoir Hills had a mean family size of 5,4 people. The exception to the general pattern of 'low income' areas having larger families than the 'higher income' areas occurred with the white population, where both areas had an average nuclear family size of 4,2 people. Sea View and Westville, furthermore, had the smallest family sizes of the seven groups. This is due to the fact that the white population is now experiencing low fertility rates (South Africa, 1984).

TABLE 9 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY NUCLEAR FAMILY SIZE, FOR THE STUDY GROUPS

| STUDY GROUPS / NUCLEAR FAMILY SIZE (NO. OF PERSONS) | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| 1 | 2 | 0 | 0 | 1 | 1 | 1 | 8 |
| 2 | 2 | 1 | 0 | 3 | 8 | 5 | 1 |
| 3 | 10 | 19 | 2 | 4 | 17 | 15 | 2 |
| 4 | 22 | 28 | 10 | 19 | 27 | 43 | 9 |
| 5 | 23 | 20 | 15 | 24 | 35 | 22 | 16 |
| 6 | 25 | 14 | 16 | 18 | 8 | 12 | 15 |
| 7+ | 16 | 19 | 57 | 31 | 3 | 2 | 49 |
| N | 100 | 97 | 100 | 100 | 99 | 100 | 199 |
| MISSING DATA % | 0 | 3 | 0 | 0 | 1 | 0 | 1 |
| $\bar{X}$ | 5,0 | 4,8 | 6,1 | 5,4 | 4,2 | 4,2 | 5,7 |
| MEDIAN | 5,1 | 4,6 | 6,6 | 5,5 | 4,3 | 4,2 | 6,4 |

As regards family size and recreation activities, the family size distribution of the main recreation activities for each study group were correlated with the family size distributions of the corresponding study group samples as a whole, in order to determine whether or not any significant family size trends existed within each study group ($r_s$ - see table 10). In four of the seven study groups namely, Westcliff, Reservoir Hills, Westville and KwaMashu (see table 10) no significant family-size related trends emerged in any of the main recreation activities.

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE-IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS / NUCLEAR FAMILY SIZE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWA MASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWA MASHU |
| 1 PERSON | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 2 | 0 | 0 | 1 | 3 | 7 | 9 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 4 | 13 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 4 | 2 |
| 2 | 4 | 3 | 0 | 3 | 7 | 6 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 1 | 2 | 2 | 0 | 2 | 8 | 5 | 0 | 2 | 0 | 4 | 0 | 0 | 2 | 9 | 2 | 3 | 3 | 0 | 0 | 0 | 6 | 7 | 5 | 0 | 3 | 4 | 2 |
| 3 | 12 | 22 | 3 | 4 | 20 | 17 | 2 | 9 | 23 | 3 | 1 | 17 | 14 | 1 | 14 | 16 | 2 | 1 | 15 | 16 | 12 | 7 | 3 | 4 | 1 | 2 | 4 | 19 | 19 | 6 | 21 | 0 | 3 | 0 | 11 | 20 | 15 | 4 | 11 | 15 | 2 |
| 4 | 31 | 22 | 15 | 21 | 28 | 41 | 7 | 20 | 39 | 11 | 19 | 31 | 43 | 3 | 20 | 29 | 11 | 18 | 28 | 43 | 29 | 33 | 9 | 15 | 8 | 11 | 23 | 27 | 40 | 23 | 26 | 10 | 12 | 14 | 23 | 24 | 42 | 24 | 56 | 59 | 12 |
| 5 | 19 | 28 | 10 | 24 | 33 | 20 | 24 | 24 | 20 | 13 | 24 | 38 | 21 | 14 | 25 | 21 | 16 | 25 | 37 | 24 | 17 | 19 | 20 | 26 | 13 | 7 | 30 | 34 | 17 | 20 | 16 | 10 | 18 | 24 | 49 | 40 | 23 | 64 | 17 | 15 | 20 |
| 6 | 8 | 16 | 15 | 17 | 7 | 13 | 11 | 26 | 7 | 16 | 19 | 3 | 14 | 13 | 20 | 14 | 16 | 18 | 8 | 10 | 21 | 19 | 14 | 15 | 15 | 20 | 17 | 9 | 15 | 29 | 21 | 19 | 6 | 14 | 9 | 4 | 10 | 4 | 14 | 4 | 11 |
| 7 + | 27 | 9 | 57 | 29 | 4 | 1 | 51 | 15 | 11 | 57 | 36 | 3 | 0 | 53 | 19 | 18 | 54 | 35 | 3 | 2 | 17 | 19 | 54 | 33 | 50 | 61 | 23 | 1 | 4 | 17 | 13 | 62 | 62 | 48 | 3 | 2 | 3 | 4 | 0 | 0 | 53 |
| N | 26 | 32 | 62 | 70 | 77 | 70 | 45 | 54 | 44 | 76 | 75 | 29 | 48 | 90 | 59 | 58 | 82 | 84 | 90 | 83 | 24 | 43 | 35 | 27 | 109 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 67 |
| $r_s$ SPEARMAN'S RANK CORRELATION COEFFICIENT | ,53 | ,87 | ,94 | 1 | 1 | ,99 | 1 | ,99 | ,95 | 1 | ,93 | ,92 | ,88 | ,95 | ,93 | ,99 | ,99 | ,96 | 1 | 1 | ,86 | ,87 | ,96 | ,93 | ,88 | ,96 | ,94 | 1 | ,90 | ,93 | ,76 | ,99 | ,89 | ,93 | ,99 | ,96 | 1 | ,73 | ,96 | ,92 | ,93 |

$\alpha = 0,05$ TABLE 10 : PERCENTAGE DISTRIBUTION OF MAIN RECREATION ACTIVITIES BY NUCLEAR FAMILY SIZE, FOR THE STUDY GROUPS

In Austerville, those families with four and less persons tended to participate slightly more than bigger families in visiting activity ($r_s$ = 0,53 - see table 10). This perhaps lends support to Wheeler and Stutz's (1971) finding that in lower income groups (and Austerville is a low income area) bigger families participated less in social activity. In the study group of Sparks Estate the bigger families tended to participate slightly less in dancing activity.

As regards marital status and recreation activities in this study, in Austerville married respondents, although the minority group, nevertheless made up the majority of those who participated in visiting as an activity (65% - see table 11). Single people, 62% of the sample, only constituted 35% of those who went visiting. In the same study group, single people made a disproportionately high contribution to those who went dancing, and married people a disproportionately low contribution. In Westcliff dancing activity exhibited the greatest marital status-related bias, with the single respondents, although the minority group in the sample, making up the majority of those who went dancing (81%). Married respondents, 62% of the Westcliff sample, only constituted 19% of those who participated in dancing. In Sea View, single people made a disproportionately high contribution to those who went to the cinema (54%), and married people a disproportionately low contribution (45%).

In the KwaMashu study group, the activity which exhibited the greatest marital status-related bias was cinema-going activity with single people (51% of the KwaMashu sample) participating far more in this activity (85% - see table 11) than did married people (19% - see table 11) who made up 49% of the KwaMashu sample.

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE-IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS → / MARITAL STATUS | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWA MASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWA MASHU |
| SINGLE | 35 | 45 | 48 | 36 | 31 | 11 | 51 | 65 | 40 | 41 | 33 | 55 | 29 | 86 | 55 | 29 | 35 | 30 | 22 | 13 | 50 | 33 | 49 | 41 | 53 | 43 | 26 | 21 | 8 | 71 | 57 | 81 | 41 | 21 | 37 | 20 | 11 | 14 | 19 | 31 | 36 |
| MARRIED | 65 | 55 | 52 | 64 | 69 | 89 | 49 | 35 | 60 | 59 | 67 | 45 | 71 | 14 | 45 | 71 | 65 | 70 | 78 | 87 | 50 | 67 | 51 | 59 | 47 | 57 | 73 | 79 | 92 | 29 | 43 | 19 | 59 | 79 | 63 | 80 | 89 | 86 | 81 | 69 | 64 |
| N | 26 | 32 | 62 | 70 | 77 | 70 | 45 | 54 | 44 | 76 | 75 | 29 | 48 | 90 | 59 | 58 | 82 | 84 | 90 | 83 | 24 | 43 | 35 | 27 | 109 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 67 |

TABLE 11 : PERCENTAGE DISTRIBUTION OF MAIN RECREATION ACTIVITIES BY MARITAL STATUS, FOR THE STUDY GROUPS

In summary then, only a few study groups exhibited a certain marital status-related bias with respect to some recreation activities. In Austerville and Westcliff dancing appeared to be the preserve of single people. In Sea View and KwaMashu, cinema-going also appeared to be dominated by single people. Married people tended to go visiting more in the Austerville sample than did those who were single. As far as nuclear family size is concerned, it did not appear to be a critical factor in the recreation activities of the study groups. Austerville and Sparks Estate were the only study groups in which some family size-related trend was discernible: In the former smaller families participated more in visiting activity than did bigger families, and in the latter study group, bigger families tended to participate slightly more in dancing activity.

## 4.5 MONTHLY HOUSEHOLD INCOME, RECREATION EXPENDITURE AND RECREATION

Income has, in the past, been seen as a discriminant variable in measuring recreation activity participation. People with more income, it was argued, tended to have higher participation rates in most recreation activities, especially in those activities requiring expensive equipment (Murphy, 1981). More recently, however, theorists have realised that income differences do not conclusively explain recreation patterns and some even argue that income *per se* is not an all important variable in recreation behaviour (Dunn, 1974; Wright, 1974; Kaplan, 1975).

Patmore (1970) argues that the impact of high income on recreation is seen not so much in increasing opportunity as in awareness and desire. He cites results from a major British national survey, the Pilot National Recreation Survey - 1967, which found that inexpensive recreation activities

such as swimming and hiking were relatively unpopular among lower income groups and, indeed, tended to be pursued by those with more money. Lucas argues in the same vein that:

> Income seems to be more necessary than sufficient as an explanation of recreation choices. Money does not form tastes, it limits their expression (in Murphy, 1981, 144).

Neulinger (in Murphy, 1981) points out that the effect of income as a variable in the analysis of data from the study of recreation participation may be either over- or understated for a number of reasons. One such reason could be that the difference between a respondent's gross and net income could be considerable and this difference is not always noted in recreation studies. A respondent may also fail to report the household's income and only include his own in the survey. Furthermore, income from a second job or odd-job may not be reported. This, Neulinger argues, could make a substantial difference in terms of what an individual can afford to spend on his or her recreation activities. Finally, and importantly, Neulinger (in Murphy, 1981) points out that an individual's frame of reference can make a big difference in the subjective perception of personal income. He quotes the following example to illustrate his point:

> If a person with a meager income lives in a reasonably affluent section of town, then his or her earnings will seem quite paltry compared with neighbors. Yet, the same income in a poor neighborhood, where demands and aspirations might be lower, could be interpreted differently (in Murphy, 1981, 145).

Income as a variable affecting recreation should, then, in Neulinger's opinion, be treated with caution. Kaplan (1975) also warns against treating income as a variable in recreation simplistically. He argues that:

> The leisure phenomenon is no more the simple matter of what costs what, or who can afford what, but a matter of credit and one's life style (1975, 91).

Table 12 shows the total monthly household income for the study groups. The most wealthy study groups emerge as the white study groups of Sea View and Westville, as might have been expected. Ninety-five percent of the Westville respondents and 45% of the Sea View respondents had a monthly household income of more than R750. In Westville, 66% of respondents earned in excess of R1 250, in terms of household income, whereas in Sea View, only 10% of respondents, and in Reservoir Hills, only 9% of respondents, fell into this income bracket (see table 12). None of the respondents in the other five study groups fell into the R1 251+ income category.[1]

There were only slight differences in monthly household income between the two coloured study groups.

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1. It will be recalled that the fieldwork for this study was undertaken in 1980.

TABLE 12 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY TOTAL MONTHLY HOUSEHOLD INCOME (1980), FOR THE STUDY GROUPS

| STUDY GROUPS / MONTHLY HOUSEHOLD INCOME (IN RANDS) | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| 0 - 250 | 31 | 21 | 32 | 10 | 0 | 0 | 88 |
| 251 - 500 | 39 | 47 | 42 | 35 | 14 | 0 | 11 |
| 501 - 750 | 26 | 25 | 14 | 24 | 41 | 5 | 1 |
| 751 - 1000 | 4 | 4 | 6 | 16 | 24 | 11 | 0 |
| 1001 - 1250 | 0 | 3 | 5 | 5 | 11 | 18 | 0 |
| 1251 + | 0 | 0 | 0 | 9 | 10 | 66 | 0 |
| N | 70 | 98 | 99 | 96 | 76 | 94 | 199 |
| MISSING DATA % | 30 | 2 | 1 | 4 | 24 | 6 | 1 |

In Austerville, 96% of respondents and in Sparks Estate, 93% of respondents belonged to households whose total income was between R0-R750 per month (see table 12). Sparks Estate did, however, have fewer respondents (21%) in the lowest income bracket than did Austerville (31%). Sparks Estate, furthermore, had 3% of respondents in the household income category of R1 001-R1 250, whereas none of the Austerville respondents fell into this income category.

The two Indian areas differed considerably more from each other than did the coloured study groups. In Westcliff 74% of respondents and in Reservoir Hills, 45% of respondents lived in households with a monthly income of R0-R500 (see table 12). Reservoir Hills was by far the more wealthy of the two areas,

with 30% of households having a total monthly income of more than R750 as opposed to Westcliff, in which only 11% of the households had such an income.

KwaMashu, the black study group, was 'worst-off' by far, in terms of monthly household income, with 99% of respondents living in households which earned only R0-R500 (see table 12). No KwaMashu respondents fell into the top three income categories.

In summary, then, the two white areas of Westville and Sea View were the more wealthy of the seven study areas, while KwaMashu was the poorest in terms of total monthly household income. Reservoir Hills was 'better-off' than the 'high' income coloured area of Sparks Estate, which had a household income profile very similar to that of Austerville.

As far as reported household recreation expenditure is concerned, Westville and Reservoir Hills respondents spent the most on recreation (see table 5, appendix 2). Twenty- 5
eight percent of Westville respondents and 24% of Reservoir Hills respondents, spent more than R50 per month on recreation. Six percent of Austerville respondents, 15% of Sparks Estate, 4% of Westcliff and 18% of Sea View respondents spent more than R50 per month on recreation. KwaMashu respondents spent the least on recreation, with 99% of them spending only R20 or less on recreation per month.
It must be pointed out, however, that respondents in all study groups had great difficulty in estimating monthly household recreation expenditure and thus figures quoted were, at best, rough estimates of recreation expenditure.

As regards total monthly household income and recreation activities, the income distributions of the main recreation activities for each study group were correlated ($r_s$ - see

table 13) with the income distributions of the corresponding study group samples, in order to determine whether or not any significant income-related trends existed within each study group. Table 13 shows that almost no income-related trends emerged. The only exceptions were drive-in activity in the Reservoir Hills sample ($r_s$ = 0,59), which seemed to have more participants from the higher income households, and tennis in the Sea View sample which seemed to have more players from the lower income households in the sample (see table 13). No other significant income-related trends in recreation activities were discernible within any of the other study groups. Furthermore, the kinds of activities in which different socio-economic groups within each population group participated, differed very little (for an elaboration of this point see section 5.5). It would seem, then, that the recreation activities which the different study groups participated in were not critically determined by income alone.

## 4.6 EDUCATION AND RECREATION

Researchers differ with respect to the importance they attribute to education as a factor influencing recreation. Some research has been presented to support education as a crucial social determinant of recreation behaviour, while almost as many research findings support the opposite finding.

Meuller and Gurin (in Murphy, 1981) in their study of outdoor recreation participation patterns in the 1960's, found that when education was held constant, different rates of participation by different occupation groups became minor. Hendee et al (in Mercer, 1976) also consider level of education attained to be a critical preference-forming parameter with respect to recreation.

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE-IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS → / MONTHLY HOUSE-HOLD INCOME (R) | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWA MASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWA MASHU |
| 0 - 250 | 18 | 22 | 31 | 10 | 0 | 0 | 93 | 44 | 23 | 32 | 6 | 0 | 0 | 84 | 24 | 18 | 32 | 7 | 0 | 0 | 23 | 21 | 34 | 12 | 89 | 22 | 7 | 0 | 0 | 26 | 18 | 19 | 24 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 251 - 500 | 55 | 50 | 40 | 41 | 14 | 0 | 7 | 31 | 43 | 41 | 33 | 8 | 0 | 13 | 37 | 48 | 43 | 31 | 12 | 0 | 32 | 48 | 46 | 44 | 10 | 50 | 43 | 15 | 0 | 30 | 59 | 57 | 41 | 21 | 7 | 6 | 0 | 5 | 0 | 0 | 9 |
| 501 - 750 | 27 | 25 | 18 | 22 | 38 | 5 | 0 | 19 | 25 | 16 | 25 | 42 | 4 | 2 | 32 | 29 | 13 | 27 | 42 | 4 | 41 | 26 | 11 | 20 | 1 | 17 | 23 | 38 | 6 | 35 | 21 | 14 | 12 | 17 | 41 | 42 | 4 | 50 | 6 | 7 | 1 |
| 751 - 1000 | 0 | 0 | 5 | 15 | 24 | 11 | 0 | 6 | 5 | 7 | 18 | 23 | 4 | 0 | 8 | 4 | 6 | 19 | 24 | 9 | 5 | 2 | 3 | 16 | 0 | 4 | 14 | 29 | 9 | 9 | 0 | 10 | 12 | 28 | 26 | 31 | 5 | 15 | 14 | 0 | 0 |
| 1001 - 1250 | 0 | 3 | 6 | 7 | 10 | 15 | 0 | 0 | 5 | 5 | 7 | 15 | 24 | 0 | 0 | 2 | 6 | 6 | 12 | 18 | 0 | 2 | 6 | 0 | 0 | 7 | 5 | 10 | 11 | 0 | 3 | 0 | 12 | 10 | 7 | 11 | 14 | 15 | 11 | 33 | 0 |
| 1251 + | 0 | 0 | 0 | 4 | 14 | 69 | 0 | 0 | 0 | 0 | 11 | 12 | 67 | 0 | 0 | 0 | 0 | 0 | 10 | 69 | 0 | 0 | 0 | 8 | 0 | 0 | 9 | 8 | 74 | 0 | 0 | 0 | 0 | 17 | 19 | 11 | 77 | 15 | 69 | 59 | 0 |
| N | 26 | 32 | 62 | 70 | 77 | 70 | 45 | 54 | 44 | 76 | 75 | 29 | 48 | 90 | 59 | 58 | 82 | 84 | 90 | 83 | 24 | 43 | 35 | 27 | 109 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 67 |
| $r_s$ SPEARMAN'S RANK CORRELATION COEFFICIENT | ,94 | ,90 | ,94 | ,94 | 1 | 1 | ,91 | ,94 | ,99 | 1 | ,83 | ,94 | ,99 | 1 | ,94 | 1 | 1 | ,94 | ,99 | 1 | ,82 | ,99 | ,94 | 1 | 1 | ,94 | ,94 | 1 | 1 | ,82 | ,90 | ,99 | ,89 | ,59 | ,81 | [illegible] | 1 | ,69 | 1 | ,84 | 1 |

$\alpha = 0,05$

TABLE 13 : PERCENTAGE DISTRIBUTION OF MAIN RECREATION ACTIVITIES BY TOTAL MONTHLY HOUSEHOLD INCOME (1980), FOR THE STUDY GROUPS

Neulinger (in Murphy, 1981) argues that the level of education a person attains plays a determining role in that person's work and recreation activities:

> Certain avenues of both work and leisure remain closed to those with little formal education. Thus, not only is a college degree required for many positions in government and industry, but equally a college background is necessary to give the person access to certain social circles which in turn determine his life and leisure style.... It is true that the educated person has a greater potential for leisure, since he is better equipped to do what he wants to do, both on his job and in his free time (in Murphy, 1981, 139).

Kaplan (1975), on the other hand, warns that one should guard against gross comparisons in recreation practices between those with more and those with less education, because, sharp differences in recreation pursuits exist amongst even those holding the same level of education. He argues that if education does influence recreation, this influence is due to firstly, the influence education effects on one's occupation and secondly, to its importance on "style of life, taste, curiosity, sense of discrimination and values" (Kaplan, 1975, 97).

In discussing the latter point, Kaplan (1975) points out that the more educated person would "appear to be" more aware of recreation alternatives. Furthermore, once he or she has chosen a particular recreation activity, the educated person "appears to display more taste and sensitivity in his conversations, his response to art and to his selection of and understanding of reading materials" (Kaplan, 1975, 99). He proceeds, however, to qualify the above statements by warning of the difficulty involved in looking at education *per se*:

> "it would appear" has been my guarded qualifying phrase in all three regards. Clear evidence does not exist to support any of these hypotheses; social science has not yet demonstrated its ability to disentangle education from its related web of jobs, higher income, higher status and urban life (1975, 99).

Before discussing education levels of the study groups in relation to their recreation activities, it is first necessary to look at the various education profiles of the study groups. Table 14 shows the respondents in the Indian area of Reservoir Hills and the white areas of Sea View and Westville to be the most educationally advantaged of the study groups. These three study groups had the lowest proportion of respondents who had less than a standard eight level of education and the highest proportion of respondents who had passed standard ten. Westville, furthermore, had the highest proportion of respondents who had some post school education, in contrast with the other six study groups, which each had less than 10% of people with this level of education (see table 14). The two study areas with the lowest levels of education were the Indian area of Westcliff and the black residential area of KwaMashu, with the latter area being educationally the 'worst-off' -- as might have been expected (see table 14).

TABLE 14 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY LEVEL OF EDUCATION COMPLETED, FOR THE STUDY GROUPS

| HIGHEST LEVEL OF EDUCATION COMPLETED / STUDY GROUPS | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| LESS THAN STANDARD 8 | 29 | 32 | 66 | 22 | 18 | 0 | 72 |
| STANDARD 8 | 34 | 31 | 19 | 23 | 39 | 10 | 24 |
| STANDARD 10 | 30 | 29 | 14 | 38 | 33 | 38 | 2 |
| TECHNICAL DIPLOMA | 5 | 2 | 0 | 1 | 5 | 6 | 0 |
| POST MATRIC DIPLOMA | 1 | 5 | 1 | 5 | 4 | 14 | 1 |
| DEGREE | 2 | 2 | 0 | 9 | 0 | 14 | 0 |
| POST GRADUATE DEGREE | 0 | 0 | 0 | 1 | 0 | 18 | 1 |
| N | 98 | 99 | 100 | 99 | 76 | 87 | 198 |
| MISSING DATA % | 2 | 1 | 0 | 1 | 24 | 13 | 1 |

Both KwaMashu and Westcliff had very high proportions of respondents with a 'standard 8 or less' level of education, with Westcliff having 82% and KwaMashu as many as 96% of people in this education category. Only 2% of KwaMashu respondents and 14% of Westcliff respondents had attained a standard ten level of education, while this was true for between 30% and 38% of the respondents in the other five study groups (see table 14).

The pattern of educational achievements was essentially the same for the two coloured study areas of Austerville and Sparks Estate. Twenty-nine percent of Austerville respondents as against 32% of Sparks Estate respondents

had less than 'standard 8' level of education -- substantially less than in either KwaMashu or Westcliff (see table 14). Amongst Austerville respondents, 30% had a matric qualification and 29% of respondents in Sparks Estate fell into this category. Both areas had 2% of their respondents in possession of degrees.

As regards level of education completed and recreation activities, the education distributions of the main recreation activities for each study group were correlated ($r_s$ - see table 15) with the education distributions of the corresponding study group samples, in order to determine whether or not any significant education-related trends existed within each study group. Table 15 shows that no clear education-related trends appeared to emerge with respect to the recreation activities of the study groups.

In summary, then, the respondents in Reservoir Hills, Sea View and Westville were the most educationally advantaged of the study groups, with Westville being the 'best educated' of the three. The two coloured areas of Austerville and Sparks Estate had very similar education profiles and were certainly better-off educationally than either Westcliff or KwaMashu, which were the most disadvantaged with respect to education. With respect to education and recreation, education did not appear to be a determining factor in the recreation preference patterns of the study groups.

## 4.7 OVERVIEW

The aim of this chapter has been to present some of the social and economic characteristics and patterns associated with the respondents in the study and to relate those patterns to recreation behaviour.

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE-IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS → HIGHEST LEVEL OF EDUCATION COMPLETED | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWA MASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWA MASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWA MASHU |
| LESS THAN STANDARD 8 | 23 | 16 | 61 | 19 | 17 | 0 | 87 | 28 | 19 | 65 | 21 | 0 | 0 | 65 | 29 | 30 | 65 | 23 | 21 | 0 | 25 | 31 | 51 | 18 | 70 | 48 | 22 | 19 | 0 | 24 | 26 | 48 | 62 | 31 | 17 | 11 | 0 | 18 | 0 | 0 | 80 |
| STANDARD 8 | 42 | 45 | 21 | 25 | 39 | 7 | 9 | 36 | 42 | 20 | 23 | 42 | 17 | 31 | 34 | 32 | 21 | 22 | 40 | 13 | 50 | 36 | 29 | 18 | 26 | 24 | 24 | 38 | 7 | 41 | 38 | 24 | 21 | 24 | 41 | 27 | 12 | 36 | 7 | 8 | 16 |
| STANDARD 10 | 31 | 32 | 18 | 41 | 39 | 39 | 4 | 26 | 26 | 14 | 40 | 54 | 26 | 1 | 28 | 28 | 13 | 40 | 29 | 37 | 17 | 29 | 20 | 37 | 2 | 26 | 41 | 32 | 35 | 20 | 31 | 29 | [illegible] | 28 | 34 | 45 | 37 | 4 | 43 | 42 | 2 |
| TECHNICAL DIPLOMA | 0 | 3 | 0 | 0 | 3 | 3 | 0 | 6 | 2 | 0 | 1 | 0 | 2 | 0 | 3 | 4 | 0 | 1 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 7 | 3 | 3 | 0 | 0 | 0 | 0 | 9 | 4 | 45 | 10 | 8 | 0 |
| POST MATRIC DIPLOMA | 4 | 3 | 0 | 6 | 2 | 13 | 0 | 0 | 9 | 1 | 7 | 4 | 14 | 1 | 2 | 5 | 1 | 6 | 4 | 16 | 4 | 12 | 0 | 4 | 1 | 2 | 2 | 4 | 15 | 0 | 3 | 0 | 3 | 14 | 7 | 7 | 12 | 0 | 10 | 8 | 1 |
| DEGREE | 0 | 0 | 0 | 9 | 0 | 13 | 0 | 4 | 2 | 0 | 7 | 0 | 16 | 0 | 3 | 2 | 0 | 7 | 0 | 16 | 4 | 2 | 0 | 19 | 0 | 0 | 11 | 0 | 15 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 15 | 0 | 13 | 12 | 0 |
| POST GRADUATE DEGREE | 0 | 0 | 0 | 1 | 0 | 25 | 0 | 0 | 0 | 0 | 1 | 0 | 24 | 1 | 0 | 0 | 0 | 1 | 0 | 16 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 19 | 0 | 17 | 21 | 1 |
| N | 26 | 32 | 62 | 70 | 77 | 70 | 45 | 54 | 44 | 76 | 75 | 29 | 48 | 90 | 59 | 58 | 82 | 84 | 90 | 83 | 24 | 43 | 35 | 27 | 109 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 67 |
| $r_s$ SPEARMAN'S RANK CORRELATION COEFFICIENT | ,92 | ,96 | ,95 | 1 | ,96 | 1 | ,93 | ,96 | ,89 | 1 | ,99 | ,74 | ,78 | ,97 | ,96 | ,96 | 1 | ,96 | 1 | ,97 | ,77 | ,94 | ,95 | ,86 | 1 | ,96 | 1 | ,97 | ,99 | ,98 | ,92 | ,91 | 1 | ,86 | ,90 | ,96 | ,97 | ,72 | ,92 | ,94 | 1 |

$\alpha = 0,05$ TABLE 15 : PERCENTAGE DISTRIBUTION OF MAIN RECREATION ACTIVITIES BY EDUCATION, FOR THE STUDY GROUPS

The age, gender, occupation, marital status, family size and education profiles of each of the seven study groups have been considered. With respect to age, the study groups were found to have very similar profiles, whites having had markedly fewer people under the age of thirty. A consideration of the gender structure showed coloureds, blacks and whites to have had very even distributions of respondents between the sexes, as did the low-income Indian area of Westcliff. Reservoir Hills was the only exception to this pattern, with a higher proportion of women in the sample, due, it is posited, to possible fieldworker bias in respondent selection in the area.

The kinds of occupations which respondents had, varied considerably between the population groups. Whites in Westville had the highest proportion of respondents holding 'professional, technical' and 'administrative, managerial' positions and KwaMashu the lowest proportion in these occupation categories. As far as marital status was concerned, most of the population groups had a higher proportion of married than single respondents, with Westville having the highest and KwaMashu the lowest proportion. The pattern of nuclear family size was not unexpected, with the 'lower-income' areas of most of the population groups having had, on average, bigger nuclear families than did the 'higher-income' study areas. Westcliff had the biggest nuclear families followed by KwaMashu. The white areas of Westville and Sea View had, predictably, the smallest nuclear families of all the study groups. The latter two areas also emerged, quite predictably, as the most wealthy of the study groups, followed by Reservoir Hills, the two coloured areas (which had very similar household income profiles) and lastly, KwaMashu, which was markedly 'poorer' than the other study groups. The very same pattern emerged with respect to education. Westville, Sea View and

Reservoir Hills were (in that order) the most educationally advantaged, with the two coloured areas following and the low income Indian sample of Westcliff and the black KwaMashu sample being the most disadvantaged with respect to education.

When considering these socio-economic variables in relation to the kinds of recreation activities undertaken by the study groups, no single variable emerged as a clear, determinant factor in recreation behaviour. As far as age was concerned, younger people appeared to participate more in cinema-going activity in Sea View and dancing activity in Reservoir Hills, but in general, the study groups' recreation activities showed little or no age related trends. The same can be said of occupation, marital status, education and nuclear family size. A few gender-based differences were discernible in sports activities, with coloured, Indian and black men being the majority participants in soccer activity and white men the main participants in squash.

The data from this study therefore point to the extreme difficulty of singling out a single determining variable, or even a cluster of critical variables, which may account for recreation behaviour. This point furthermore focuses attention on a more intrinsically problematic area in this field of research -- namely the lack, in recreation research, of a comprehensive and sound theoretical base which offers an explanation of recreation and its geography as elements of social life. Recreation researchers in South Africa and abroad have tended to theorise about recreation on the basis of often inconclusive and even contradictory data, such as those cited in this chapter. Such research and theorising has given rise to the 'pot-pourri' of ideas concerning the relationship of factors such as age, gender and the like, to recreation. Some theorists confirm a strong causal relationship with respect to some socio-economic variables

and recreation, while others firmly deny that such relationships exist (e.g., Kaplan, 1975; Schmitz, Scherzer and Strodel in Murphy, 1981). Such confusion confirms, of course, not just a lack of coherent recreation theory, but also, importantly, the subtle complexity of the recreation phenomenon. It is, as argued in Chapter One of this dissertation, a concept which defies easy categorisation and simple definition and analysis. Recreation is not a separate and easily identifiable compartment of social and individual life, but pervades and is pervaded by numerous other facets of experience. Recreation is, at the very least, a multi-dimensional, multivariate phenomenon. Butler-Adam (1984) arguing in the same vein, has the following to say of the recreation phenomenon:

> Recreation is, then, a difficult realm of human experience to define. Not only does it vary from individual to individual quite considerably and at a significant level in human affairs, but it also varies in form, content, nature, and relationships as a social phenomenon through time, space and culture (Butler-Adam, 1984, 3).

From the data, analysis and discussion presented in this chapter, then, three points of some consequence would appear to emerge. One point is that this research confirms the observation that broad recreation preference patterns cannot easily be accounted for in terms of the usual socio-economic variables invoked by positivistically-inclined social researchers of varying ideological persuasions. Neither age nor income, class or conflict on their own or jointly, seem to account for the phenomenon of recreation and its more obvious patterns of expression. Later in this dissertation, it will be shown that, within the framework of recreation activity space analysis, such variables may have some explanatory value.

The second point is that the lack of a coherent theory of, or in, recreation is confirmed. This lack reflects, on the one hand, the problematic nature of recreation while contributing (in part at least) to the confusion in empirical work on the other hand. Finally, it has to be observed that, as the data, the uncertainty and the absence of coherent theory attest, recreation is indeed a difficult area to categorise, study and explain.

To leave the matter at that point would, of course, be (at best) defeatist and (at worst) nihilistic. And it is true that there are other avenues of analysis which may be followed in approaching the study of recreation. Amongst these are the theoretical stances founded on 'need' and 'spatial justice' or 'welfare'. Apart, therefore, from providing essential data for use in this study, it has been a value of this chapter that it has confirmed the importance of such theoretical and (thereafter) analytical alternatives as those on which this study is ultimately founded.

# CHAPTER FIVE

## GENERAL WORK AND FREE-TIME PATTERNS OF THE STUDY GROUPS

Chapter Four confirmed the observation, made in the opening chapter of this dissertation, that recreation is a complex phenomenon which is an integral part of social life and which, therefore, cannot be studied in isolation. This chapter, consistent with this contention, considers the broader context within which recreation occurs -- it deals, in general, with the work and free-time patterns of the study groups. More specifically, attention will be given to the amounts of time spent engaged in formal economic activity and related obligatory activities, with the amounts of time respondents considered to be 'free' for recreational purposes and with the way in which people used that time.

Work time, defined by most recreation writers as the average hours of employment, may, according to Parker (in Haworth and Smith, 1975), be considered by the day, the week, the year, and the whole of life - the latter category referring to issues of retirement. This chapter, however, will discuss only the first three time levels of work and the free-time associated with those levels.

### 5.1 DAILY WORK ACTIVITY

Although the work day and week are conceptually different it is, in praxis, difficult to keep them entirely separate. Patmore (1970) states that an important component of weekly (or daily) working routine is the time taken journeying to and from work. He estimates that this occupies the equivalent

of an additional full working day each week. This aspect was considered to be important in this study, as in South Africa (as stated in Chapter Two), coloured, Indian and black people are greatly constrained by the Group Areas Act with respect to their residential location. Their place of residence is, in many cases, far from the city centre and other areas of employment, necessitating a long journey, often by means of public transport, to and from work. This journey was taken into consideration in the compilation of the variable 'daily work activity'.

Those respondents who were economically employed were asked to indicate at what time they left home for work and at what time they returned home from work on a typical working day. They were asked to exclude those days when other activities were done en route from home to work and vice versa. The resultant number of hours away from home were taken to constitute the variable 'daily work activity' which will be discussed in this section. The trip to and from work was included in work time because it was felt that this time could often not be used for any other activity due to the pressures to get to work, and home again, 'on time'.

When considering the study groups in relation to 'daily work activity' (see table 16), Westville emerged as the study group with the lowest 'working activity' hours, with all economically active respondents spending 11 hours and less on 'work' activity.[1]

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1. It must be noted that, unless otherwise stated, the respondents referred to in this section and the following two sections (i.e., sections 5.1, 5.2 and 5.3) are those who were economically employed.

Ninety-three percent of the Sea View respondents were also in this category, followed by Reservoir Hills (90%) and Sparks Estate (78% - see table 16). The low income coloured and Indian areas had relatively fewer respondents 'working' 11 hours and less. These two areas had far more respondents 'working' between 12 and 17 hours a day -- Westcliff having had 34% and Austerville 32% of respondents in this category.

TABLE 16 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY NUMBER OF HOURS SPENT ON 'DAILY WORK ACTIVITY', FOR THE STUDY GROUPS

| STUDY GROUPS / DAILY WORK ACTIVITY (HOURS) | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWAMASHU |
| | % | % | % | % | % | % | % |
| 1 - 5 | 0 | 1 | 0 | 0 | 10 | 15 | 0 |
| 6 - 8 | 22 | 28 | 5 | 45 | 8 | 73 | 3 |
| 9 - 11 | 46 | 49 | 62 | 45 | 75 | 12 | 42 |
| 12 - 14 | 26 | 19 | 29 | 8 | 8 | 0 | 50 |
| 15 - 17 | 6 | 1 | 5 | 3 | 0 | 0 | 4 |
| 18 - 20 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 21 - 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER : IRREGULAR WORK HOURS ETC. | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| N | 65 | 72 | 63 | 38 | 40 | 66 | 104 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Sparks Estate, Sea View and Reservoir Hills had relatively few respondents who worked between 12 and 17 hours a day and Westville had no respondents at all, who fell into this category. In marked contrast to the other study groups, the KwaMashu sample had only 3% of respondents 'working' for only 6 to 8 hours a day. As many as 42% and a further 50% of respondents 'worked' between 9 and 11 and 12 to 14 hours respectively.

When considering the population groups in relation to 'daily work activity', the white sample appeared to have had the lowest 'working' hours, with 90% of respondents being involved in 'work activity' for 11 hours or less. The coloured and Indian samples had very similar 'work activity' profiles, with 73% and 75% of respondents respectively, 'working' 11 hours and less. The black sample, as mentioned before, differed quite markedly from the other population groups, with only 45% of respondents having been involved in 'work activity' for 11 hours and less. Fifty-five percent of black respondents 'worked' between 12 and 17 hours daily as opposed to 27% of coloured, 25% of Indian and only 10% of white respondents. 6*

In summary then, the black sample of KwaMashu appeared to have had, by far, the longest 'daily work activity' hours. This is not surprising given the location of the township vis á vis the city centre and the other centres of employment. Much time is quite probably spent by KwaMashu respondents journeying to and from work, bearing in mind that most black workers use public transport. Also not unexpectedly, the white study groups of Sea View and particularly the more affluent area of Westville, emerged with the lowest 'work activity' hours. As stated in earlier chapters, whites have the greatest freedom of choice with respect to residential location and furthermore are, by and large, more able to afford their own means of transport. The high income Indian area of Reservoir Hills had the next lowest 'daily work activity' hours, followed by the two coloured areas (which had very similar 'work' hours profiles) and then the low income Indian area of Westcliff.

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* Numerals in the right margin of the text refer to the relevant tables in appendix 2.

## 5.2 LENGTH OF THE WORKING WEEK

Table 17 shows the distribution of the study groups with respect to the length of the working week (in terms of days worked). Sea View and Westville had very similar working patterns, with most of the respondents (Sea View - 80% and Westville - 83%) working a five day week. Very few respondents in each of these two study groups (Sea View - 17% and Westville - 12%) worked a six or seven day week.

TABLE 17 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY NUMBER OF WORK DAYS PER WEEK, FOR THE STUDY GROUPS

| STUDY GROUPS / NUMBER OF WORK DAYS | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| HALF A DAY | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 DAY | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 3 | 0 | 3 | 1 |
| 3 | 0 | 0 | 2 | 0 | 2 | 0 | 0 |
| 4 | 0 | 0 | 5 | 0 | 0 | 2 | 4 |
| 5 | 82 | 81 | 57 | 66 | 80 | 83 | 70 |
| 6 | 12 | 12 | 37 | 29 | 15 | 9 | 22 |
| 7 | 6 | 7 | 0 | 3 | 2 | 3 | 3 |
| N | 65 | 72 | 63 | 38 | 40 | 66 | 104 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

The working week patterns of the coloured samples were also very similar to each other. Eighty-one percent of Sparks Estate and 82% of Austerville respondents worked a five day week (see table 17). Twelve percent of respondents in both areas worked on a Saturday and 7% of Sparks Estate respondents worked a seven day week. KwaMashu had a relatively high percentage of respondents (70% - see table 17) who worked a five day week and 25% of respondents who were working a longer week of six or seven days.

The two Indian samples of Westcliff and Reservoir Hills had the highest percentages of respondents who worked a longer week with 37% of Westcliff and 32% of Reservoir Hills respondents working a six or seven day week.

When considering the length of the working week in relation to the population groups, the majority of respondents in all population groups worked a five day week. The white group had the highest percentage (82%) of respondents in this 7
category, followed by the coloured and black groups with 81% and 70% of respondents, respectively, working a five day week. The Indian population group had the lowest percentage (60%) of respondents who worked a five day week and the highest percentage (34%) of respondents working a six day week. The black group had 22% of respondents working a six day week and the coloured and white groups had similarly low proportions of respondents in this category.

Patmore (1970) considers the length of the weekend break to be an important facet of working habits which have an effect on recreation. He posits that:

> Many people who have the means and the enterprise to take up recreations which are both sophisticated and time-consuming may not do so because their participation at weekends is restricted to a single day (1970, 29).

This may well be so for the Indian study group in which a third of the respondents worked a six day week.

## 5.3 ANNUAL LEAVE

Patmore (1970, 29) states that "if time devoted to work is the major restraint on leisure then the annual holiday is the major opportunity". It is felt that the time available to the study groups in the form of annual leave merits a brief mention in this chapter.

When considering the study groups in relation to annual leave, Reservoir Hills had the highest proportion of respondents who had more than four weeks of leave a year (51% - see table 18). Westville had 37% of respondents in this category and Austerville and Sparks Estate 22% and 28% of respondents respectively with five or more weeks of annual leave.

TABLE 18 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY AMOUNT OF ANNUAL LEAVE, FOR THE STUDY GROUPS

| STUDY GROUPS / ANNUAL LEAVE (IN WEEKS) | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| 1 - 2 | 3 | 11 | 17 | 3 | 15 | 10 | 21 |
| 3 - 4 | 75 | 61 | 75 | 45 | 72 | 52 | 61 |
| 5 - 6 | 0 | 0 | 0 | 12 | 3 | 16 | 5 |
| 7 - 8 | 0 | 0 | 0 | 0 | 0 | 5 | 2 |
| 9 - 13 (SCHOOL VACATION) | 22 | 27 | 7 | 36 | 5 | 11 | 11 |
| MORE THAN 13 (UNIVERSITY VACATION) | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| NO SET LEAVE (OWN BUSINESS ETC.) | 0 | 1 | 2 | 3 | 3 | 0 | 0 |
| N | 64 | 71 | 60 | 33 | 40 | 66 | 84 |
| MISSING DATA % | 2 | 1 | 2 | 0 | 0 | 5 | 11 |

KwaMashu had 18% of respondents who had five or more weeks of annual leave and Sea View only 11% of respondents who enjoyed more than four weeks annual leave. KwaMashu had the highest percentage of respondents who had less than three weeks annual leave (21% - see table 18), with Sea View having had the next highest percentage of 18%, followed by the low income Indian area of Westcliff, where 17% of respondents had less than three weeks of leave a year.

In terms of population groups, all four groups had similar proportions of respondents who had three to four weeks of annual leave. The coloured group had the highest percentage of respondents (67% - see table 8, appendix 2) in this category, followed by the Indian group (65%), then the black group (61%) and lastly the white group (60%). The black group had the highest proportion of respondents (21%) who had only one to two weeks of annual leave. Both the Indian and white groups had 12% of respondents in the latter category and the coloured group had only 7% of respondents who had one to two weeks of leave a year. The white group had the highest proportion of respondents (27%) who enjoyed in excess of four weeks leave a year, followed by the coloured group (25%) and the Indian group (23%). The black group had only 18% of respondents who had in excess of four weeks of leave a year.

Table 19 shows the manner in which leave was taken by the study groups. Most of the respondents in KwaMashu (89%), Austerville (75%), Westcliff (72%) and Sparks Estate (61%) took their leave all at once. Most of the Sea View and Westville respondents (both 79%) took their annual leave at intervals throughout the year.

TABLE 19 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY USE OF ANNUAL LEAVE, FOR THE STUDY GROUPS

| STUDY GROUPS / USE OF ANNUAL LEAVE | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| ALL AT ONCE | 75 | 61 | 72 | 48 | 21 | 21 | 89 |
| SPREAD THROUGH THE YEAR | 25 | 39 | 28 | 52 | 79 | 79 | 11 |
| N | 64 | 71 | 60 | 33 | 40 | 66 | 84 |
| MISSING DATA % | 2 | 1 | 2 | 0 | 0 | 5 | 11 |

Reservoir Hills was fairly split with respect to the way in which respondents took their leave, with 48% having taken their leave all at once, while 52% took their leave at intervals throughout the year (see table 19).

From a consideration of the three variables discussed so far in this chapter (i.e., 'daily working activity', length of the working week and annual leave) one can put forward some propositions with respect to the amounts of free-time the study groups should have had at their disposal. On the basis of these data, Westville respondents ought to have had the most free-time, as this group had the lowest 'work activity' hours, the highest percentage of respondents working only a five day week and the most annual leave. Sea View should also have had a generous amount of free-time, followed by the high income Indian area of Reservoir Hills. The two coloured areas occupied almost 'average' positions with respect to these three variables and might have been expected to have 'average' amounts of free-time. The low income Indian area of Westcliff and the black area of KwaMashu had the lowest percentages with respect to these three variables, and would therefore be expected to have had the least free-time of the groups. This chapter now turns to a consideration of the amounts of free-time which the study groups perceived to be at their disposal.

## 5.4 ESTIMATED FREE-TIME OF RESPONDENTS

As with many of the other issues in the recreation field, opinions differ quite considerably with respect to both the importance and availability of free-time. Murphy (1981, 69) holds that "the tremendous growth of economic activity, individual autonomy, precipitated mobility and increased personal discretionary income have resulted in tremendous increases of free-time". DeGrazia (1962) argues, however, that the actual gains in free-time accrued over the past 130 years are relatively minimal. He states that the worker spends those extra hours gained from the reduced work week moonlighting, being involved in household 'do-it-yourself' activities, commuting to and from work and converting additional hours into household duties -- thus minimising the gain in free-time.

Time budget studies (for example Szalai, 1972, in Murphy, 1981) have shown that the total time of individuals engaged in household responsibilities has not been substantially reduced despite the introduction and use of household labour-saving devices such as dish-washers, washing machines and the like. Godfrey and Parker (1976) argue that time becomes a scarce commodity as work values seep into and affect recreation or leisure values. They argue that the net effect of this fact is that, from a psychological point of view, individuals have less leisure:

> Just as we desire to be efficient and productive in our work, we also desire to be efficient and productive in our leisure. This attitude toward leisure with its emphasis upon accomplishment, efficiency and mastery through technique and incremental improvement, places us in a situation in which we often feel that we do not have to do or accomplish our leisure goals (1976, in Murphy, 1981, 104).

Parker (in Haworth and Smith, 1975) concentrates on the concept of time left over after work and nominally available for recreation. He acknowledges that these blocks of time remaining after work are not necessarily used for recreation because they usually have to be spent on work-related activities, such as travelling to and from work, or non-work obligations such as household chores and obligations to family members. However, he maintains that time nominally free for recreation is a useful and reasonably objective beginning for analysis.

All the respondents in this study, whether economically employed or not, were asked to give an estimate of their daily free-time. For the purposes of this study, 'free-time' was defined as that time which was unobligated and able to be used for recreation. In other words, that time remaining after all work-related activities (both economic and household or familial work) had been done. It must be emphasised that the amounts of time discussed in this section represent estimates on the part of the respondents.

Table 20 shows the estimated free-time for the study groups.

TABLE 20 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY ESTIMATED DAILY FREE-TIME, FOR THE STUDY GROUPS

| STUDY GROUPS / DAILY FREE-TIME (IN HOURS) | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWAMASHU |
| | % | % | % | % | % | % | % |
| LESS THAN 1 HOUR | 9 | 14 | 4 | 13 | 20 | 23 | 11 |
| 2 | 41 | 26 | 12 | 30 | 23 | 29 | 29 |
| 3 | 23 | 18 | 17 | 23 | 16 | 28 | 25 |
| 4 | 8 | 27 | 9 | 19 | 11 | 9 | 19 |
| 5 | 1 | 6 | 17 | 6 | 6 | 6 | 10 |
| 6 - 10 | 19 | 8 | 40 | 8 | 24 | 5 | 7 |
| N | 100 | 99 | 99 | 100 | 100 | 100 | 199 |
| MISSING DATA % | 0 | 1 | 1 | 1 | 0 | 0 | 1 |

Interestingly, the white high income area of Westville, shown in Chapter Four to be the most advantaged with respect to most socio-economic variables and in this chapter, to have the most free-time on the basis of the three work-related variables discussed, emerged as the study group which estimated it had the least amount of free-time -- quite the reverse of what might have been expected from the data. Eighty percent of Westville respondents reported having only three hours or less of daily free-time, 15% estimated they had four to five hours, and only 5% had in excess of five hours of free-time a day (see table 20). In trying to explain this free-time pattern, the occupation categories of Westville respondents were cross-tabulated with their estimated daily free-time (see table 9, appendix 2). The results from this cross-tabulation of data were surprising -- most of those in the free-time categories of 0-3 hours came from two vastly different occupation categories, namely, the 'professional, technical' and the 'not economically employed' categories. 9
The latter category, as stated in section 4.3, was comprised mostly of housewives.

The disparity between the amount of free-time that one would expect Westville respondents to have had, on the one hand, (as indicated by the data discussed earlier in this chapter) and their 'cognised' free-time, on the other, is interesting. Although no direct data were collected to permit an explanation of this disparity, it is proposed that such a difference might be due to the perception of those activities which occur during free-time but which hover on the brink of being defined as 'work'. Examples of such activities might be work-related dinner parties and other socialising activities, childcare or household tasks which occur after formal working hours, and all of which are not strictly formal economic activities nor yet strictly recreation activities. Westville respondents might well have excluded time

spent on such activities from their free-time estimates. A further point with respect to this issue is that Westville respondents who were economically employed may have had to take work home to be done in so-called 'free-time' -- most of the employed respondents in this study group held professional and managerial type jobs (see section 4.3) which are reputedly 'pressured' occupations. They would, quite feasibly, also exclude time so spent when making estimates of free-time.

Respondents in the low income area of Austerville also reported having had relatively little free-time,with 50% estimating that they had only two hours of free-time or less (see table 20), while a further 23% reported having only three hours of daily free-time, i.e., 73% of Austerville respondents had between 0-3 hours of daily free-time. The table relating occupation type to free-time (table 10, appendix 2) shows that these 10
respondents came mostly from the 'production, labourer' job category and to a lesser extent from the 'professional, technical' job category. Most of those Austerville respondents who enjoyed between six and ten hours of daily free-time came from the 'not economically employed' occupation category and were mostly students and housewives (see section 4.3). No particular occupational category dominated the free-time categories of four and five hours.

As in the case of the Westville study group, the Austerville study group reported having less daily free-time than would have been expected on the basis of the data discussed in the earlier part of this chapter. Austerville is a low income area with very different occupation groups from those occurring in Westville, so the kinds of possible reasons put forward for the disparity between expected and 'cognised' time in Westville seem somewhat inappropriate for this study group. Time spent doing other jobs or odd-jobs would probably be more feasible an explanation for the discrepancy in expected and perceived free-time in this study group.

In Reservoir Hills 66% of the respondents said they had up to three hours of daily free-time (see table 20, page 115). Most of these respondents came from the 'not economically employed' occupation category (see table 11, appendix 2), which in the 11
Reservoir Hills study group was comprised mostly of housewives (see section 4.3). Reservoir Hills respondents reported less free-time than would have been expected on the basis of data presented earlier. One can only suppose that, once again, some activities which took place during free-time were perceived by the respondents to be obligatory in some way and therefore not recreational.

The KwaMashu sample had a reported free-time profile surprisingly similar to that of Reservoir Hills, in that 65% of respondents had up to three hours of daily free-time and only 7% of respondents enjoyed more than five hours of daily free-time (see table 20, page 115). Those respondents falling into the 0-3 hours categories came mainly from three occupation groups (see table 12, appendix 2) namely, the 'not economically employed' category (comprising mostly 12
housewives and students), the 'production, labourer' category and the 'services' category. The KwaMashu study group reported having more free-time than would have been expected on the basis of data in the first portion of this chapter -- KwaMashu had the highest 'work activity' hours, a relatively long working week and little annual leave relatively speaking, implying little free-time. This study group, however, occupies an 'average' or median position with respect to 'cognised' free-time. No data exist in this study which could account for this discrepancy conclusively.

From the earlier data in this chapter it might have been expected that Sea View should have had the most free-time, after the high income white area of Westville. The study group, however, appears to have had somewhat less perceived free-time than that expected.

In Sea View just over half of the respondents (59% - see table 20, page 115) reported having from 0-3 hours of daily free-time, and just under a quarter enjoyed in excess of five hours of free-time a day. Seventeen percent of the respondents said they had either four or five hours of daily free-time. Most of the respondents in the 0-3 hours categories came from the 'not economically employed' category (see table 13, appendix 2) 13
which was comprised, in the main, of housewives (see section 4.3).

Sparks Estate emerged with more estimated free-time than would have been expected from the work-related data presented earlier. Fifty-eight percent of Sparks Estate respondents had up to three hours of daily free-time and a further 32% enjoyed between four and five hours of daily free-time. Most of those in the former category held 'production, labourer' positions (see table 14, 14
appendix 2), with relatively fewer holding 'professional, technical' jobs and being students and housewives.

Westcliff which, according to the data discussed earlier in this chapter, ought to have had the least free-time, emerged as the study group with the most reported free-time. Forty percent of respondents in Westcliff said that they enjoyed as much as 6-10 hours of daily free-time (see table 20).

In summary, then, 'cognised' free-time (see table 20) did not follow the free-time trends which might have been expected on the basis of the data presented in sections 5.1, 5.2 and 5.3. In fact an almost complete reversal occurred, with Westville having the least 'cognised' free-time rather than the most, while Westcliff had the most 'cognised' free-time, rather than amongst the least. This indicates the substantial degree of subjectivity involved in this seemingly objective and easily calculated variable. People's cognitions of their free-time demonstrably vary considerably with respect to

actual free-time measured by the researcher, and yet it is cognised rather than actual measured free-time which has the greatest influence on what individuals will or will not decide to do with respect to recreation activities.

Type of occupation alone did not appear to be a determining and reliable factor in accounting for the amount of free-time respondents reported having. For example, in some study groups, the 'professional, technical' occupation group had the most reported free-time, whereas in other study groups, it was the housewives and students who enjoyed the greatest amount of free-time. This is probably so because other factors such as family and other social obligations come into play and take their toll of the 'free-time' which is available after formal economic activity.

## 5.5 RECREATION ACTIVITIES OF THE STUDY GROUPS

Having looked at the free-time patterns of respondents in the previous section, this section now presents the kind of recreation activities in which the study groups participated during their free-time. Respondents were asked to indicate which activities they typically engaged in, at three different time periods -- when they had 'a day or less', 'a few days' and 'a week or more' of free-time at their disposal. Table 21 shows the resulting participation rates, in terms of percentages, for the main recreation activities done in the first time period, for the seven study groups. In all time periods, those activities which had a participation rate of less than 20% were excluded from analysis.[1]

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1. In this chapter, only patterns of participation are considered by way of an introduction to recreation patterns. Greater detail, including, for instance, the frequency of participation, is given in the following chapters.

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CINEMA | | | | | | | TELEVISION | | | | | | SOCCER | | | | | HOBBIES | | | | DANCING | | | DRIVE-IN | | | DINING-OUT | | TENNIS | | SQUASH | CHURCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWAMASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWAMASHU | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | KWAMASHU | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | SEA VIEW | WESTVILLE | SEA VIEW | WESTVILLE | WESTVILLE | KWAMASHU |
| PARTICIPATION RATE % | 26 | 32 | 62 | 70 | 77 | 70 | 22 | 54 | 44 | 76 | 75 | 29 | 48 | 45 | 59 | 58 | 82 | 84 | 90 | 83 | 24 | 43 | 35 | 27 | 54 | 46 | 47 | 67 | 52 | 35 | 39 | 21 | 34 | 29 | 35 | 46 | 78 | 26 | 36 | 27 | 34 |

TABLE 21 : PARTICIPATION RATES FOR THE MAIN RECREATION ACTIVITIES IN THE TIME PERIOD 'DAY OR LESS', FOR THE STUDY GROUPS

Respondents in the two coloured areas of Austerville and Sparks Estate participated in the same five activities, namely, watching television, going to the cinema, dancing, visiting friends and relatives and playing and watching soccer, although the order of 'popularity' differed. Watching television and going to the cinema were the two activities which had the greatest participation rates in these two areas, with 54% and 59% of Austerville respondents respectively, and 58% and 44% of Sparks Estate respondents respectively, participating in these activities. The two Indian areas also indulged in many common activities, such as watching television, going to the cinema, visiting friends and relatives, hobbies, going to the drive-in and watching and playing soccer. Westcliff respondents participated in a seventh activity -- that of dancing (see table 21). Watching television was the most 'popular' activity in both these study groups, with 82% of Westcliff and 84% of Reservoir Hills respondents participating in this activity.

Five of the seven most popular activities in the white areas of Sea View and Westville were common to both study groups -- these were watching television, visiting friends and relatives, hobby activity, dining-out, going to the cinema and finally, playing tennis (see table 21).

Watching television was the most popular activity in both study groups. The two activities which were not common to both groups were going to the cinema, which had a participation rate of 35% in Sea View, and playing squash, in which 26% of Westville respondents participated.

The black study group of KwaMashu had only four activities which had a participation rate of above 20%, these were soccer, which had a participation rate of 54% and which

was the most popular recreation activity in the area; going to the cinema, which had a participation rate of 45%; church activity, in which 34% of KwaMashu respondents participated, and visiting, which had a participation rate of 22%.

In summary then, as suggested in Chapter Four, recreation activities, in this time period, seemed to cut across both population groups and socio-economic levels. Two activities, namely, visiting friends and relatives and going to the cinema were undertaken by all seven study groups (see table 21). All study groups, except KwaMashu, had a large proportion of respondents who watched television. The main reason for the exclusion of the blacks from this activity was the fact that, at the time of the study, KwaMashu was not supplied with electricity and battery operated television sets were probably beyond the means of many of the respondents. A further factor could have been that, at the time of the survey, no Zulu television channel was yet available, which could well have discouraged those blacks who could afford portable television sets from buying them at that time.

Soccer was the most popular sport which emerged from the study, with all study groups except whites, participating in this activity. A possible reason for this participation pattern could be that whites have greater resources at their disposal to allow them to engage in a greater number of sporting activities, many of which are probably for financial and political reasons beyond the easy reach of the other population groups. Soccer, on the other hand, is a cheap, well-organised and relatively integrated sport -- hence its popularity amongst the coloured, Indian and particularly the black population. The order of 'popularity' of the other recreation activities was as follows: hobbies, dancing, drive-in, dining-out, tennis, squash and church-going activities.

In conclusion then, very little difference emerged between study groups within population groups in terms of activities which respondents participated in when they had 'a day or less' of free-time at their disposal. Furthermore, two activities, namely visiting and going to the cinema, were common to all study groups.

For the second time period, that is recreation activities which respondents undertook when they went away from home for a few days (during the week or at the weekend), very few activities emerged for the seven study groups (see table 22). This indicates that either few people have this amount of time available to go away for recreational purposes, or that they wish (or have to) to spend this time at home when it is available.

TABLE 22 : PARTICIPATION RATES FOR MAIN RECREATION ACTIVITIES IN THE TIME PERIOD 'FEW DAYS', FOR THE STUDY GROUPS

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | CARAVANING CAMPING | | | RELAXING | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWAMASHU | AUSTERVILLE | SPARKS ESTATE | RESERVOIR HILLS | SEA VIEW | WESTVILLE |
| PARTICIPATION RATE % | 44 | 20 | 35 | 40 | 24 | 24 | 26 | 38 | 20 | 20 | 20 | 24 |

Visiting was the main activity reported by all study groups, with caravaning and camping being popular in the Austerville, Sparks Estate and Reservoir Hills study groups. The only other activity which emerged for this time period was the somewhat unspecific activity of 'relaxing'.

The third time period endeavoured to tap the kinds of activities which the respondents did during their annual leave or over a period of a week or more. As in the previous time period, no great variety of activities emerged (see table 23). Visiting friends and relatives was again the most 'popular' activity and was done by all seven study groups. The only other activities participated in were sightseeing by the Reservoir Hills respondents, and relaxing by the respondents in the two white areas of Sea View and Westville.

TABLE 23 : PARTICIPATION RATES FOR THE MAIN RECREATION ACTIVITIES IN THE TIME PERIOD 'WEEK OR MORE', FOR THE STUDY GROUPS

| MAIN RECREATION ACTIVITIES | VISITING | | | | | | | RELAXING | | CAMPING | SIGHTSEEING |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STUDY GROUPS | AUSTERVILLE | SPARKS ESTATE | WESTCLIFF | RESERVOIR HILLS | SEA VIEW | WESTVILLE | KWAMASHU | SEA VIEW | WESTVILLE | AUSTERVILLE | RESERVOIR HILLS |
| PARTICIPATION RATE % | 58 | 19 | 15 | 24 | 31 | 48 | 56 | 20 | 24 | 22 | 16 |

## 5.6 OVERVIEW

The aim of this chapter has been to present and discuss some of the general work, free-time and recreation patterns of the study groups. The number of hours ('daily work activity') and days (length of the working week) spent by the respondents on formal economic activity and the amounts of annual leave and free-time available to them were given consideration.

As far as 'daily work activity' (which included time spent on the trip to and from work) was concerned, the black sample of KwaMashu had, not unexpectedly, the highest 'work activity' hours, with the two white areas of Sea View and Westville having had the lowest. The two coloured areas of Sparks Estate and Austerville had very similar 'average' 'work activity' hours.

In terms of the length of the working week, most respondents in all the population groups worked a five day week. The Indian population had the highest proportion of respondents who worked a longer week, with 37% of Westcliff and 32% of Reservoir Hills respondents working a six or seven day week.

The most common period of annual leave available to the respondents was three to four weeks, with all four population groups having had approximately three-fifths of respondents in this leave category. Whites, predictably, had the highest proportion of respondents who enjoyed more annual leave (in excess of five weeks), whereas KwaMashu had the highest proportion of respondents with the least annual leave.

Very interesting and rather unexpected results emerged with respect to estimated daily free-time of the study groups. None of the study groups perceived or reported having the amounts of free-time that might have been expected on the

basis of the kind of data just discussed. Westville respondents, who should have had the most free-time on the basis of these data, said that they had the least, whereas Westcliff, the low income Indian area, which should have had far less, reported having the most. Work-related activities and other activities which respondents saw as obligatory, but which occurred during so-called 'free-time', might account for their perception of reduced free-time. Generally, these results point to the need for further detailed research and the extreme subjectivity of variables such as 'free-time' in the recreation field of research.

Although Westville respondents perceived themselves to have little free-time, they participated in many recreation activities at the first time period -- 'a day or less'. They participated in seven recreation activities, as did respondents in the white area of Sea View and the low income Indian area of Westcliff, who reported having a lot of free-time. Generally speaking, recreation activities which occurred in this time period seemed to cut across both population group and socio-economic levels. For example, activities such as visiting friends and relatives and going to the cinema were reported by all study groups. A similar pattern emerged with respect to activities participated in during the other two time periods -- there were few differences between the study groups. These results appear to lend substantial emphasis to the fact, already stated in this dissertation, that recreation behaviour is not determined, or easily to be accounted for, by the kinds of socio-economic variables discussed in this chapter.

# CHAPTER SIX

## THE RECREATION ACTIVITY SPACE PROFILES OF THE STUDY GROUP

This dissertation proposes three main contentions or propositions with respect to recreation. The first is the idea that recreation is a complex phenomenon (a contention to which the data in Chapters Four and Five lend considerable support) which is an essential and integral aspect of human activity. The second contention deals with recreation in the South African context. It is argued that recreation resources are inequitably distributed in South Africa (see sections 2.2 and 2.3) and that the study of recreation therefore belongs firmly within a welfare geography framework which focuses on inequitable resource distributions and strives to understand and explain their origins and effect. The third main contention of this dissertation is that the compilation, mapping and analysis of recreation activity space profiles provides a comprehensive means for looking at expressed recreation needs and of examining the de facto welfare status of the recreation experiences of the groups under study. It is to this latter contention that we now turn in this chapter of empirical data and analysis.

The chapter aims to discuss and compare, in some detail, the recreation activity space profiles of the seven study groups, in an attempt to assess relative well-being or deprivation with respect to recreation. As argued in section 2.4, recreation activity space profiles must be based on more than just physical distance and direction data, if they are to become analytical rather than descriptive tools in the geographical analysis of human well-being (Butler-Adam,

1979). Data pertaining to other critical dimensions or criteria, such as range and frequency of activities, transport mode and overall satisfaction with movement patterns and recreation need, are essential if comprehensive profiles are to be compiled. This chapter will discuss such issues and make inter-group comparisons on the basis of these criteria. The data on which the discussions will be based have been presented in appendix 3, to facilitate reading of the chapter. These sets of data represent a rich and comprehensive 'picture' of the groups' recreation activity space profiles and are both rare and valuable in the field of recreation research. Appendix 3 is divided into sections corresponding to the above mentioned criteria around which the chapter is organised.[1] A list of the specific data contained in the sections of appendix 3 is given at the beginning of each section in the appendix. In the text of the chapter, data immediately relevant to the argument being developed are cited, while other data are mentioned by way of cross-references to appendix 3.

## 6.1 RANGE AND FREQUENCY OF THE STUDY GROUPS' RECREATION ACTIVITIES

Chapters Four and Five showed that the kind of recreation activities undertaken by the respondents appeared to cut across both population groups and socio-economic levels. As far as the range of activities is concerned, the two white areas of Sea View and Westville and the low income Indian area of Westcliff had the greatest range of recreation activities -- all three had seven recreation activities, with a participation rate of more than 20% (see section 5.5). Six recreation activities emerged

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1. As stated in section 2.4, movement is the basic dynamic of activity spaces -- those recreation activities of the study groups which were home based and therefore did not require movement in space by respondents (e.g., watching television and hobby activity) are not included in the detailed analysis and data sets in this chapter.

in the high income area of Reservoir Hills and the coloured areas of Austerville and Sparks Estate had a range of five recreation activities. Only four recreation activities emerged in the KwaMashu study group and amongst these was church activity which was a recreation activity peculiar to KwaMashu. It may seem strange that this activity was listed by KwaMashu respondents as a recreation activity, but it qualifies as such in terms of the definition of recreation given in section 1.3.1, where recreation was defined as any activity or activities undertaken by an individual for the primary purpose of physical, mental and/or spiritual refreshment. Going to church is an occasion for not only spiritual upliftment, but it also appears to be a social occasion of some significance in the black community.

It appears then that in terms of range of activities, whites, Indians and coloureds had the greatest range of activities, whereas blacks had what appears to be a significantly smaller range.

While range of recreation activities is a useful criterion with which to begin analysis and comparison of the groups, the frequency with which recreation activities are undertaken, is an equally critical aspect of the compilation of individuals' or groups' activity space profiles. It is not sufficient to know how many activities are participated in by the respondents; it is equally important to know how frequently such activity takes place in order to get a picture of overall recreation behaviour (see tables 16-22, appendix 3A).

While KwaMashu respondents had the smallest range of recreation activities of all the study groups, they had the greatest frequency of participation -- all recreation activities of this study group had well over half of participant respondents

engaging in the activities on a weekly (and in some cases, even a daily) basis (see table 22, appendix 3A). In other words, the KwaMashu study group, while having the smallest range of recreation activities, showed the greatest degree of involvement and the highest frequency of participation in recreation activities. The white high-income area of Westville also showed a high frequency rate with respect to most of the recreation activities in which they engaged -- far higher, in fact, than that of Sea View and the rest of the study groups (with the exception of KwaMashu). The coloured study groups appeared to have the lowest frequency of participation.

Although similar recreation involvement patterns emerged for KwaMashu and Westville, two vastly different areas socio-economically, it would seem feasible to propose that very different sets of variables and social conditions may have given rise to these patterns. Possible reasons for the high recreation involvement pattern in the case of KwaMashu respondents may relate to the kind and nature of the activities pursued in this study group. Three of the four activities analysed (namely visiting, going to church and playing and watching soccer) may be described as low-cost activities. This fact would facilitate and encourage frequent participation. Furthermore, activities such as going to church occur, typically, on a weekly basis -- hence the predominantly weekly involvement pattern with respect to this activity.

A different set of variables may be postulated to account for the high degree of recreation participation in the high income white area of Westville. Here the range of activities was far greater than that of the KwaMashu group and included in this range were high-cost recreation activities such as dining-out and squash -- the former of which was the most frequent of the activities to emerge in this study group (see table 21, appendix 3A). It will be recalled that Westville emerged as

the most advantaged of the groups with respect to variables such as income, occupation and free-time (see Chapter Four) -- all of which might have predisposed and enabled Westville respondents to participate in recreation frequently. These observations are particularly interesting. Income and other socio-economic variables do not seem to relate strongly to recreation activity preference patterns, as earlier analyses in this dissertation have shown. Yet, in terms of movement, frequency and regularity, seen in relation to recreation activities, socio-economic conditions do appear to have some possible explanatory value.

In the case of the coloured study groups, which had a more or less average range of activities but low recreation involvement (see tables 16 and 17, appendix 3A), it might be argued that other obligatory activities occurring in 'free-time', such as child care and other household duties, reduced the frequency of recreation participation. It must, however, also be acknowledged that this level of recreation involvement may well have been satisfactory to, and even perhaps desired by, the respondents in Austerville and Sparks Estate. It is also true, however, that the similar patterns of involvement in these two study groups may have meant very different things to the people involved in them. The latter argument highlights once more the complexity and elusiveness of the recreation phenomenon. It is extremely difficult, in recreation research, to unravel what a particular recreation pattern or experience <u>means</u> to a particular group of people. In this regard, it is worth observing that, useful though they are, all analyses of meso- or macro-scale patterns are limited, when the interpretation of <u>meaning</u> is required. What patterns constitute in the experience of those who make them, requires a different kind of analysis -- an experiential, qualitative, analytical approach which may, ultimately, be the most useful in recreation studies. Until such a level of analysis is undertaken, however, a study of

activity spaces continues to provide insights and challenges which may be missed in more traditional approaches to recreation geography.

## 6.2 TRANSPORT MODE AND TRANSPORT PROBLEMS

As states earlier (see section 2.4) movement is the basic dynamic of activity spaces. It is important, then, both to gather and analyse data pertaining to this aspect of recreation activity space profiles. This section, together with appendix 3B, presents and discusses both the means of transport and levels of satisfaction which respondents expressed, concerning movement undertaken in relation to various recreation activities.

The modes of transport used by the study groups (see tables 23-29, appendix 3B) seemed to be associated, broadly, with the socio-economic level of the study groups. In other words, within each population group, walking and the use of public transport to and from recreation activities tended to be greater in the lower income areas. Overall, the low income Indian area of Westcliff and the black area of KwaMashu had the greatest proportion of respondents in these categories (see tables 25 and 29, appendix 3B). Such a pattern is quite understandable, given that these modes of transport are cheaper (although somewhat inconvenient) and more likely to be used by those groups which have relatively less disposable income available for recreation. Westcliff and (especially) KwaMashu were shown in section 4.5 to be 'worse-off' than the other groups with respect to total monthly household income and would therefore be expected to make greater use of those forms of transport which do not require great expense.

The ownership and use of a private car, while offering a greater choice of recreation activity destinations, requires substantial capital outlay and regular expenditure in the form of maintenance

and petrol. Predictably, the higher-income groups of Westville, Sea View and Reservoir Hills made the most use of the private car as a means of reaching recreation activity destinations. In the case of the white areas of Sea View and Westville, well over three-quarters of respondents used private cars when participating in recreation activities (see tables 27 and 28, appendix 3B), while more than three-fifths of respondents in the high income Indian area of Reservoir Hills made use of this mode of transport (see table 26, appendix 3B). The remaining respondents in these three study groups mainly used the bus or, to a lesser extent, walked when recreating.

Respondents in the study were asked to specify any transport problems which they experienced when engaging in recreation activities -- tables 30-36 in appendix 3B summarise their replies.

Almost all the respondents in all the study groups, with the exception of Austerville, reported experiencing no transport problems when participating in recreation activities. Such results were not unexpected in the case of those respondents who made use of private cars for recreation purposes, as was predominantly the case in Sparks Estate, Reservoir Hills, Sea View and Westville. One might, however, have expected respondents in Westcliff and especially KwaMashu, who relied on public transport when participating in recreation, to have been dissatisfied in some way with transportation. This, however, was not the case -- very few KwaMashu respondents (ranging from 2%-6%, see table 36) and even fewer Westcliff respondents (ranging from 0%-4%, see table 32) complained of either poor bus or train services. As section 6.4 of this chapter will show (and discuss in greater detail), much of cinema-going and visiting activity in both these areas, and soccer activity in Westcliff, occurred within walking distance

of the respondents' homes -- hence no transport problems were encountered when participating in these activities. Although many KwaMashu respondents, and to a lesser extent Westcliff respondents, had to travel relatively far, using public transport, to participate in other recreation activities (see section 6.4), they appeared to consider such transport to be adequate, as very few reported experiencing transport problems of any kind.

Austerville respondents were the only respondents who reported experiencing transport problems in any great number. Those respondents who made use of the bus service when participating in recreation activities, complained that the service was problematic, with buses being infrequent, rarely on time and costly. Private car users in this study group reported the cost of petrol to be a transport problem with respect to recreation participation.

In summary then, respondents in lower income areas tended to make greater use of public transport when participating in recreation activities than did respondents in higher income areas, with Westcliff and especially KwaMashu respondents being the greater users of these modes of transport. The latter two study groups also had the greatest proportion of respondents who walked to and from recreation activity destinations. It did not follow, however, that KwaMashu and Westcliff respondents were the most dissatisfied with their movement patterns -- on the contrary, most of these respondents reported experiencing little or no transport problems when participating in recreation activities. Austerville, the low income coloured area, was the only study group in which respondents appeared to be dissatisfied with the transport used to recreation activities -- here respondents making use of public transport complained of an inefficient bus service.

## 6.3 RADIAL DISTANCE AND DIRECTION

Much of the radial distance and direction data pertaining to the study groups' recreation activities are summarised in the form of activity space maps (see figures 1-7, appendix 3C) which give an overall spatial impression of the study groups' recreation behaviour.

When looking at movement patterns, it is not just the obvious spatial elements of the recreation pattern which are important, but also the specific variables and social structures which have brought them into being -- these will, of course, change from study group to study group. In attempting to explain the spatial recreation patterns in this section, reference will be made to relevant data in appendix 3C, as well as data presented in earlier chapters.

With respect to the radial distances travelled by Austerville and Sparks Estate respondents to recreation activity destinations, Austerville respondents appeared to travel further to engage in all recreation activities than did Sparks Estate respondents (see figures 1 and 2 and tables 37 and 38, appendix 3C). These study groups participated in the same recreation activities (see section 5.5), so differences in movement patterns are not due to type or kind of recreation activity. This pattern is more likely to be due to the fact that the low income coloured area of Austerville is peripherally located relative to Sparks Estate which enjoys an unusually central location for a 'black' residential area, being a mere six kilometres from Durban's city centre. In both these study groups, visiting activity had the greatest range in terms of radial distances. Just over half the respondents in both Austerville and Sparks Estate (see tables 37 and 38, appendix 3C) visited people within their area of origin (i.e., Austerville or Sparks Estate). The remaining 'visiting'

respondents travelled between 9-20 km in the direction of the other coloured residential areas to visit friends and/or relatives. The widespread nature of this activity is clearly visible in the activity space maps (see figures 1 and 2, appendix 3C). Such a pattern is not surprising, given the widespread location of coloured group areas in Metropolitan Durban. A further directional bias discernible from the activity space maps of these two areas is towards the Durban city centre, where much of cinema and dancing activity of the respondents took place.

As far as the Indian study groups are concerned, it would appear that Reservoir Hills respondents travelled further than did Westcliff respondents to participate in recreation activities (see tables 39 and 40 and figures 3 and 4, appendix 3C). It must once again be emphasised that it is not only the obvious spatial aspects of the groups' recreation patterns which are important, but equally, the specific variables and social conditions or structures which generated such patterns. Reservoir Hills is largely an upper income, privately owned, Indian residential area and Chapters Four and Five showed respondents in this area to be 'better-off' with respect to most socio-economic variables than respondents in the low income housing scheme area of Westcliff. Reservoir Hills respondents, furthermore, would be well able to travel further (and with more ease) for recreational purposes, since more than three-fifths of them had private means of transport at their disposal, whereas more than half of Westcliff respondents had to rely on public transport (see section 6.2) when participating in recreation activities. So although Reservoir Hills respondents appeared to be recreationally disadvantaged with respect to radial distances travelled, it may be argued that they had the mode of transport and the means to avail themselves of recreational opportunities at some distance from their area

of origin (i.e., Reservoir Hills). Nonetheless, the fact that people did travel away from their homes does suggest that they needed the mode of transport available to them in order to gain access to needed facilities. Opportunities, in other words, did not necessarily exist closer to home.

On the other hand, a high proportion of all but one of the recreation activities undertaken by Westcliff respondents occurred within a 0-4 km radius of respondents' homes (see table 39 and figure 3, appendix 3C). This concentration of recreation activity within their residential area may be due to the relative lack of resources, such as greater disposable or discretionary income (see section 4.5) and private transport (see section 6.2), which would facilitate and increase the choice of recreation activity destinations. When asked why the Westcliff area was chosen as the site for recreation activities, a high proportion of respondents gave reasons of proximity to home and convenience, rather than the quality of facilities involved, for locating recreation activities within a 0-4 km radius of their homes (see table 46, appendix 3C).

With respect to directional bias, the relevant activity space maps showed that much of the recreation activity movement outside of the areas of origin (i.e., Westcliff on the one hand, and Reservoir Hills on the other) occurred in the direction of the other Indian Group Areas (see figures 3 and 4, appendix 3C). Of the two areas, only cinema-going in Reservoir Hills had a significant bias towards the Durban City centre.

Very similar radial distance patterns emerged for the two white study groups of Sea View and Westville (see tables 41 and 42 and figures 5 and 6, appendix 3C). In both areas a high percentage of recreation activity occurred within a 0-4 km radius of respondents' homes. A further similarity was that very few

recreation activity destinations occurred more than 12 km from respondents' homes (see tables 41 and 42, appendix 3C). The fact that the whites did not, generally speaking, have to travel as far as did some of the other study groups may be due to the fact that their residential areas occupy the better locations with respect to accessibility to all parts of the city. The 'Apartheid City' is so structured as to facilitate the easy mobility of the white population group -- white residential areas are typically found, as in the case of Sea View and Westville, closer to freeways, main highways and transport services than are residential areas of the other population groups. It is also true that whites have a much greater choice with respect to recreation facilities in Metropolitan Durban -- most facilities in the city centre and surrounding areas occur in white Group Areas and are therefore reserved for 'whites only'.

The radial distance pattern for KwaMashu was somewhat split, with most of church going and visiting activity having taken place within 0-4 km radius of respondents' homes and most of cinema-going and soccer activity having occurred at some considerable distance from the respondents' homes (between 9-12 km for soccer, and 13-16 km for cinema-going, see table 43 and figure 7).

When considering the activity space maps of the blacks with those of the other groups, the most striking difference is that KwaMashu respondents' recreation movements are very concentrated -- they recreated in only three main areas namely, KwaMashu, Stamford (where the Curries Fountain and Kingsmead Soccer Stadia are located) and the Durban city centre (for cinema activity). A very small percentage of visiting activity took place in the other black residential areas of Inanda, Lamontville and Umlazi. It may be argued that this constrained recreation activity space of KwaMashu respondents may be due to

the fact that they lacked the easy transport (section 6.2 showed that the majority of KwaMashu respondents depended on public transport) and the discretionary income (see section 4.5) to enable them to visit friends and engage in other recreation activities in areas far from home. Black residential areas occupy peripheral locations in Metropolitan Durban (see section 2.3) and are furthermore scattered, being situated very far from one another. It may then also be argued that the constrained recreation activity movement pattern is yet another manifestation of the constraining or inhibiting effect of the Apartheid policy on the lives of black people in South Africa -- which serves to reduce their mobility and keep them in spatially isolated pockets on the periphery of the 'White City'.

In summary then, as far as radial distances and direction were concerned, no general pattern emerged. In other words, greater radial distances were not always associated with the lower income or 'poorer' study groups. Respondents in the low income coloured area of Austerville did appear, however, to travel further to participate in recreation activities than did Sparks Estate respondents. The situation was reversed in the Indian study groups, with Reservoir Hills respondents travelling further than did Westcliff respondents. The white study groups exhibited very similar distance patterns, with respondents in both areas travelling relatively little for recreation pruposes. KwaMashu respondents who emerged as the 'worst-off' socio-economically (see Chapters Four and Five) had the most constrained recreation activity space profile. As stated earlier in this chapter, it is necessary to look further than the most apparent spatial elements or aspects of movement patterns to the specific variables and social structures which brought such patterns into being. A welfare or socio-spatial justice framework enables one to isolate these important variables and social structures under-

pinning the recreation movement patterns of the groups under study. In the 'Apartheid City' (viewed in a welfare framework) who you are will to a large extent determine what and how much you will get in terms of recreation and other resources and importantly where you will get them (see section 2.3). The Apartheid policy requires all population groups to live in specific 'group areas', but the whites have the greatest range of choices (including recreation choices and opportunities) available to them in white Group Areas. This, it may be argued, is why the whites in the study, while having the means to travel extensively for recreation purposes did not do so -- they had no need to travel far, as sufficient opportunities to satisfy their recreation need were available relatively close to their homes. In the case of the higher income Indians in Reservoir Hills, opportunities to satisfy their recreation need were fewer and existed, generally, in areas far from home, but importantly, they had the money to enable them to travel to these areas and avail themselves of these recreation opportunities. Respondents in the lower income Indian area of Westcliff and the black area of KwaMashu were not as fortunate. Here, respondents did not have the means (section 4.5 showed these two groups to be the 'poorest' of the study groups) to make use of any recreation facilities which were located far from home, so it may be argued, their recreation activity movements were confined, by and large, to their residential areas. When they did travel, respondents in these two areas were confined to using recreation facilities only in those areas which they could reach by public transport. The lower income coloured study group of Austerville was 'better-off' with respect to income than either Westcliff or KwaMashu (see section 4.5) and could therefore afford to travel away from their residential area to needed recreation facilities. They did not, however, travel as far as did Reservoir Hills respondents for recreation purposes, possibly due to the fact

that respondents in Austerville were generally not as 'wealthy' as those in Reservoir Hills (see section 4.5). Respondents in the higher income area of Sparks Estate, it may be argued, did not have to travel as much as the other coloured group because of Sparks Estate's relatively central location in Metropolitan Durban -- respondents in this study area were therefore closer to available recreation opportunities than were respondents in Austerville, which lies approximately 12 km to the South of the Durban City centre, and is therefore further from the other coloured group areas which lie to the north and north-east of the city centre (see figure 1, section 1.2.1).

In short, it may be argued that the Apartheid policy limits recreation opportunities by confining different population groups to recreating in specific group areas. The constraints imposed by Apartheid are, however, not equally applicable to all. Whites are the least constrained of the population groups, as white residential areas tend to be near to one another and occupy the better locations with respect to centrality and accessibility to most resources. Furthermore, as will be shown in the next section, white residential areas tend to be better equipped recreationally and where needed facilities do not exist within their immediate residential area, such facilities are usually available in other nearby white areas. The reverse is true for coloureds, Indians and blacks. These groups have relatively few recreation opportunities available in their residential areas (as will be discussed in more detail in the next section) and have to travel relatively far in order to take advantage of any recreation opportunities existing in other relevant group areas due to the scattered and peripheral location of many of the coloured, Indian and black residential areas (see figure 1, section 1.2.1).

It is apparent, however, from the data presented in this section that where these groups have the economic resources needed to overcome limited recreation resource bases, as in the case of Reservoir Hills respondents and, to a lesser extent, Austerville and Sparks Estate respondents, they are able to overcome, partially, the spatial constraints of the 'Apartheid City'. This is true only in so far as they have the means to travel to, and avail themselves of, the recreation facilities which might exist in other (usually distant) group areas.

## 6.4 RECREATION NEED

The mapped recreation activity spaces presented in the previous section represent respondents' expressed recreation needs and are a statement of the extent to which the study groups were able to express and satisfy their recreation needs using various available resources (see section 2.4 for an elaboration of these ideas). This section now turns to a consideration of the respondents' normative and (articulated) felt needs. More specifically, attention will be given to municipal open-space standards as they apply to all the study groups, except KwaMashu.[1] This section will also consider the existing recreation facilities within each of the study areas and the respondents' degree of satisfaction with these and other facilities (in other areas) which they made use of when recreating.

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1. An open-space standard for KwaMashu was not forthcoming, neither from the Durban Municipality, which previously administered the area, nor the KwaZulu Government which is presently responsible for the administration of the area.

It will be recalled that Mercer (1973, 39), applying Bradshaw's need classification to recreation, identified normative recreation need as "the more or less precise and objective standards which are set up by experts in various fields associated with recreation". Section 2.1 further put forward, as an example of a normative recreation need standard, the Durban Municipality's prescription of two hectares of open-space per thousand population for areas under their jurisdiction. This standard applies to five of the seven study areas, namely Austerville, Sparks Estate, Westcliff, Reservoir Hills and Sea View. As already stated, such a standard was not available for KwaMashu, and Westville, the upper income white area, is administered by the Westville Municipality which has an open-space standard of three hectares per thousand population.

The concept of open-space is broken down by the Municipalities into 'playlots', 'active recreation' (defined by the municipality as facilities such as playing fields and sports complexes) and 'passive recreation' (e.g., parks). Tables 51-56 in appendix 3D show this municipal classification of recreation space for the relevant study groups and the accompanying maps and keys (see figures 8-14, appendix 3D) give the location and a brief description of each recreation 'facility' in the areas, as stated in the Durban Municipality's report on open space (City Engineer's Department, 1982) and the Westville Municipality's report on open space (Leggo, 1982).

When comparing the six study areas with respect to open-space allocation (see table 24), the low income coloured area of Austerville appears to be the only study area to be 'normatively' in need, as it has an open-space ratio below that

prescribed by the municipality.[1] The high income Indian area of Reservoir Hills, on the other hand, appears to be the best provided in terms of recreation space, having an open-space ratio approximately four times greater than the Durban Municipal standard. The rest of the study areas namely Westcliff, Sparks Estate, Sea View and Westville, all have ratios above the relevant municipal open-space standards, and appear, therefore, to have adequate normative open-space allocations.

TABLE 24 : ESTIMATED POPULATION, TOTAL OPEN-SPACE, OPEN-SPACE RATIOS AND MUNICIPAL OPEN-SPACE STANDARDS, FOR THE STUDY AREAS

| STUDY AREA | ESTIMATED POPULATION (1980) | TOTAL OPEN-SPACE (HA) | OPEN-SPACE RATIO (HA./1000 POP.) | MUNICIPAL OPEN-SPACE STANDARD (HA./1000 POP.) |
|---|---|---|---|---|
| AUSTERVILLE | 26 362 | 19,3500 | 0,73 | 2,00 |
| SPARKS ESTATE | 10 493 | 25,6045 | 2,44 | 2,00 |
| WESTCLIFF | 22 628 | 73,1400 | 3,23 | 2,00 |
| RESERVOIR HILLS | 13 138 | 104,4990 | 7,95 | 2,00 |
| SEA VIEW | 4,765 | 17,8500 | 3,75 | 2,00 |
| WESTVILLE | 19 602 | 136,2200 | 6,95 | 3,00 |
| KWAMASHU | 160 000 | NOT AVAILABLE | NOT AVAILABLE | NOT AVAILABLE |

1. With reference to table 24, an open-space ratio is calculated by dividing the total amount of open-space available (e.g., 19,35 Ha in the case of Austerville) by the population size (e.g., 26 362 for Austerville) and then multiplying the result by 1 000 to get a ratio of open-space per thousand population (e.g., 0,73 for Austerville).

A closer examination of the breakdowns of open-space for the relevant study groups (see tables 51-56, appendix 3D) reveals that these ratios of recreation space provision are grossly misleading, as much of the so-called 'open-space' in these areas (especially in the case of Westcliff and Reservoir Hills) is 'undeveloped' and will remain so, as most of it is totally unsuitable for any kind of recreational development. In Reservoir Hills, the additional problem of the steepness of the land set aside for recreation has to be faced. Without major capital works such land can, at best, be used only for passive recreation purposes. These findings coincide with and extend Mercer's (1973, 39) caution, mentioned earlier in this dissertation, that normative need standards (such as the one just described) are, alone, seldom true indicators of need, as they tend to be "institutionalised impressions about recreation rather than standards based on well-tested empirical research".

Open-space ratios, presented and discussed above, do not give much indication of the nature and quality of the recreation environments in the study areas. In general, the recreation facilities in the low income coloured area of Austerville were ill-equipped, poorly maintained and grossly inadequate for the population size at the time of the study. There were only a couple of reasonably equipped sports fields (i.e., fields were marked and had goal posts) suitable for soccer and hockey (see figure 8 and key, appendix 3D). Most of the other fields or 'kickabouts'[1] were poorly or completely

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1. 'kickabouts' are defined as "small, unmarked playing fields" suitable for the playing of informal games, in the Durban Municipality's report on open-space (City Engineer's Department, 1980).

ungrassed. As far as playlots were concerned, most of these, although 'equipped' and intended for use by the very young, were unfenced and many were also ungrassed. Where playground equipment did occur, most of it was in a state of disrepair. There was no community hall or library in the area. As a result, there were, after school hours, scores of children of all ages playing in the streets -- an indication that, amongst other things, insufficient playing areas existed for children in the area. Most of the houses in Austerville have little or no front or back yards in which children can play.

Recreation facilities, both indoor and outdoor, tended to be better equipped and in a better state of repair in the higher income coloured area of Sparks Estate. Figure 9 (appendix 3D) shows the facilities available in the area. The swimming pool in Sparks Estate was very overcrowded and, in the opinion of residents, used by people from other coloured areas as well as by Sparks Estate residents. Kickabouts and playlots, although generally grassed, were also small for an area which has a fairly large young population.

Respondents in both these study areas were well aware of the recreation opportunities available to them in their areas. They were equally cognisant of the shortcomings of available facilities and of their recreation needs as far as further facilities in their residential areas were concerned. Table 25 summarises the shortcomings of recreation facilities in the study areas, as perceived by the respondents.

TABLE 25 : PERCENTAGE DISTRIBUTION OF SHORTCOMINGS OF RECREATION FACILITIES IN THE STUDY AREAS, GIVEN BY THE STUDY GROUPS

| STUDY GROUPS / SHORTCOMINGS OF RECREATION FACILITIES | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMPSHU % |
| NO SHORTCOMINGS | 0 | 4 | 75 | 20 | 48 | 61 | 0 |
| NO SPORTS FACILITIES | 0 | 1 | 0 | 3 | 12 | 6 | 0 |
| GENERAL LACK OF FACILITIES | 48 | 42 | 14 | 54 | 29 | 28 | 0 |
| LACK OF VARIETY OF FACILITIES | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| IRREGULAR HOURS OF USE | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| POOR QUALITY | 35 | 52 | 11 | 23 | 5 | 0 | 17 |
| COST TOO HIGH | 0 | 0 | 0 | 0 | 2 | 0 | 42 |
| POLITICAL RESTRICTIONS | 0 | 0 | 0 | 0 | 0 | 3 | 10 |
| OVERCROWDING, LACK OF SPACE | 17 | 1 | 0 | 0 | 2 | 0 | 31 |
| N | 100 | 93 | 99 | 96 | 96 | 97 | 190 |
| MISSING DATA % | 0 | 7 | 1 | 4 | 4 | 3 | 5 |

Very few respondents in Sparks Estate (4%) and none of the Austerville respondents were satisfied with existing recreation facility provision in their residential areas (see table 25). Almost half of Austerville respondents (48%) and Sparks Estate respondents (42%) were of the opinion that there was a general lack of recreation facilities in their area. Many also complained that existing facilities were of a poor quality. Some of the Austerville respondents (17%) reported that facilities in their area were inadequate, in that they were unable to cope with the volume of users. It will be recalled that Austerville is a low income area, with the community as a whole being unable to finance the repair of existing facilities or the provision of new ones.

Tables 57 and 58 (in appendix 3D) provide a summary of Austerville and Sparks Estate respondents' felt needs with respect to recreation facility provision in their areas of residence. These two study groups had, by and large, different needs with respect to recreation facilities. The main facilities needed in the Austerville area (according to Austerville respondents) were a cinema, park and library (see table 57, appendix 3D), while Sparks Estate respondents felt that they needed squash courts, more sportsfields and a park in the area (see table 58, appendix 3D). In terms of the activities which people in these areas undertook (see section 5.5), this suggests that, while Austerville respondents wanted to have facilities close at hand for some of their usual activities, Sparks Estate respondents wanted to have facilities which would allow them new recreation pursuits.

All respondents in the study were asked to give general quality ratings of the facilities they used when participating in recreation. These ratings refer to all facilities used, not just those which occurred in the respondents' areas of residence, and are presented for the main recreation activities of each study group in tables 64-70 in appendix 3D. For example, those respondents involved in soccer activity in both Austerville (see table 64, appendix 3D) and Sparks Estate (see table 65) were the most dissatisfied with respect to the quality of facilities they used for this activity -- most 'soccer' respondents rated facilities used as poor or bad. Most of the cinema-goers and 'dancers' from Austerville and Sparks Estate were satisfied with the quality of the facilities they used for these activities, and rated them either very good or satisfactory. But for the exception of soccer facilities, the data in the tables indicate a relatively high degree of satisfaction with facilities amongst Austerville and Sparks Estate respondents.

Of the two Indian study areas, Reservoir Hills (see figure 11, appendix 3D) was better provided for with respect to recreation facilities than was Westcliff (see figure 10, appendix 3D), even though the latter area had a far greater population than Reservoir Hills (see table 24, page 145). Westcliff had a cinema and three sets of playing fields, of which only one was equipped with changerooms. This area, which has a large very young population, had only one small playlot which was unfenced and had very little playground equipment to speak of. Much of the 'passive' open-space in the Westcliff area was unkept, being very overgrown and totally unusable as recreation space for the resident population. Much of the 'passive' open-space in Reservoir Hills was, as stated earlier, also unsuitable for recreation, being overgrown and very steep. Reservoir Hills did, however, have five parks, of which only one -- Pridely Park -- was of a fairly substantial size (see figure 11, appendix 3D). Reservoir Hills furthermore had numerous playlots which were equipped with playground equipment for children.

When asked about the shortcomings of recreation facilities in their area, three-quarters of the Westcliff respondents found no fault with existing facilities, as opposed to one-fifth of Reservoir Hills respondents who were satisfied with existing facilities in their area (see table 25, page 148). Over half of Reservoir Hills respondents were of the opinion that there was a general lack of recreation facilities in Reservoir Hills, whereas only 14% of Westcliff respondents were of the same opinion about facilities in the Westcliff area. Similarly, more Reservoir Hills respondents (23% - see table 25) than Westcliff respondents (11%) complained that facilities in their residential area were of a poor quality. In summary then, although the recreation facility provision in Westcliff appeared to be poor, from all available

data and relative to the Reservoir Hills area, very few Westcliff respondents voiced any complaints about existing facilities in the area. The reasons for this are unclear. Westcliff respondents may have indeed been satisfied with the existing facilities or may have been dissatisfied, but not prepared to voice their dissatisfaction.

Westcliff respondents, although not very vocal about shortcomings of existing recreation facilities in their residential area, felt that they were in need of a variety of recreation facilities (when asked specifically if they felt they needed further facilities in their area), of which the two most important were a swimming pool and suitable parks and playgrounds for children (see table 59, appendix 3D). The three main facilities which Reservoir Hills respondents felt they needed to have in their area were a swimming pool, cinemas and tennis courts (see table 60, appendix 3D). In terms of recreation activities in which people in these areas participated (see section 5.5), these articulated felt needs suggest that both Westcliff and Reservoir Hills respondents wanted to have facilities which would allow them new recreation pursuits in their areas.

Tables 66 and 67 (in appendix 3D) show (with the exception of soccer facilities in the case of Westcliff respondents) a relatively high degree of satisfaction with recreation facilities amongst Westcliff and Reservoir Hills respondents.

The white lower income area of Sea View had very few recreation facilities of any kind. The area had only two very small playlots (see figure 12, appendix 3D) and only one set of sportsfields located near Coedmore Quarries. The sportsfields were, therefore, not easily accessible to most Sea View residents. There was a library situated in the central area, but the

area did not have a community centre of any kind. There were also no parks in the area. The future of the one tennis and bowls club in Sea View was, at the time of the study, somewhat unsure in light of proposed road improvements. Sea View has, admittedly, a small population (see table 24, page 145) when compared with the other white study group (i.e., Westville), but the available recreation facilities were few, even for a small population. The lack of facilities in the area is a possible explanation for the fact that Sea View respondents were shown in the previous section to use facilities in the nearby white areas of Bellair, Rossburgh and Umbilo (see figure 5, appendix 3C).

Westville, the upper income white study area on the other hand, was very well provided for with respect to recreation facilities (see figure 13, appendix 3D). The area had a number of sporting facilities including 19 tennis courts, 10 squash courts, 7 soccer fields, 6 bowling greens, 3 hockey fields, a cricket oval and a swimming pool. It is interesting to note, at this point, that Westville had a smaller population than either the low income Indian area of Westcliff and the low income coloured area of Austerville, and only a slightly larger population than the upper income Indian area of Reservoir Hills (see table 24, page 145) -- yet sporting and other recreation facilities in Westville far out-numbered those in any of the other study areas. There were also a large number of private sporting clubs of which the biggest, in terms of range of facilities and membership, was the Westville Country Club. None of the other six study areas had a country club. The Westville area also had eleven landscaped parks which were equipped with children's play equipment and two libraries -- one located in the central area of Westville, the other in Westville North. In addition, the area had a large community or civic centre.

With respect to shortcomings of facilities in their residential areas, a relatively high proportion of both Sea View (48%) and Westville (61%) respondents reported no faults or shortcomings with respect to facilities in their areas (see table 25, page 148). Just under a third of the respondents in both these areas were of the opinion that there was a general lack of recreation facilities in their residential area -- somewhat surprising in the case of Westville respondents, as they were clearly well-off with respect to recreation facility provision. Levels of expectation with respect to recreation were, obviously, higher in Westville than in Sea View.

When asked what further facilities they felt they needed in their area, not surprisingly, almost half of Westville respondents were of the opinion that present recreation facility provision was adequate and that no further facilities were needed (see table 62, appendix 3D). Most of Sea View respondents (93% - see table 61, appendix 3D), on the other hand, expressed some need in terms of recreation facilities for their area. The main facilities which Sea View respondents wanted in the area were parks, squash courts, sportsfields, indoor sports facilities and tennis courts. Those Westville respondents who felt the area needed further facilities wanted a variety of facilities such as a golf course, more parks, squash courts and tennis courts, a cinema and a ten-pin bowling alley, to name but a few. In terms of the activities which people in these two study areas undertook (see section 5.5), this suggests that both Sea View and Westville respondents wanted facilities close at hand for some of their usual recreation activities as well as facilities for new recreation pursuits. As far as general quality ratings of facilities were concerned, the data in tables 68 and 69 (in appendix 3D) indicate a relatively high degree of satisfaction with recreation facilities amongst Sea View and Westville respondents.

KwaMashu appeared to be poorly provided with respect to recreation facilities when compared with the other study groups. KwaMashu is one of the largest mass-housing townships in Metropolitan Durban, having an estimated population of 160 000 (see table 24). As stated earlier, open-space standards of the kind presented and discussed for the other six study groups were not forthcoming, neither from the Durban Municipality which originally administered the area nor from the KwaZulu Government which now administers the area. An inventory of existing recreation facilities was, however, compiled with the help of the KwaMashu Township manager and his staff.

For its size (KwaMashu has a population eight times that of Westville and almost six times that of Austerville and Westcliff - see table 24), KwaMashu appeared to be under-provided with respect to recreation facilities of all kinds. As far as sportsfields are concerned, there were eight 'open grounds' in the area (see figure 14, appendix 3D). These fields were unfenced and equipped with goal posts and marked for the playing of soccer. There were two soccer stadia in KwaMashu, the Princess Magogo Stadium (with a seating capacity of 1 500) and the smaller Rotary Stadium, with a seating capacity of 800 people. There was only one set of tennis courts in the area and these were in a bad state of disrepair. KwaMashu was grossly underprovided with respect to children's playgrounds -- there were only two in the area and both of these had little playground equipment. The area had two swimming pools, one situated in Section D and the other in Section G. There were also a number of beer halls (eight in all) in the area (see figute 14, appendix 3D).

With regard to perceived shortcomings of recreation facilities in their area, almost half the KwaMashu respondents (see table 25, page 148) felt that, in general, the cost of using

facilities was high. Other major complaints were that the facilities were overcrowded and of a poor quality. All KwaMashu respondents felt that they needed further facilities in their area (see table 63, appendix 3D). Facilities which they wanted included another swimming pool, parks, a hotel or other facility for social meetings and dancing, a cinema and sportsfields. In terms of the recreation activities in which KwaMashu respondents participated (see section 5.5), these articulated felt needs suggest that KwaMashu respondents, generally, wanted to have facilities in their area which would allow them new recreation pursuits. The data in table 70 (appendix 3D) indicate that KwaMashu respondents were, in general, satisfied with the quality of facilities they used when recreating.

In review then, this section has considered the normative recreation needs of the study groups (by way of a discussion of the municipal open-space standards) and their felt recreation needs and dissatisfactions with respect to recreation facilities in their areas of residence.

As far as normative need is concerned, when compared with the relevant municipal open-space standards, only Austerville was recreationally in need with respect to open-space provision -- this study group was the only one to have an open-space ratio below that prescribed by the Durban Municipality. Reservoir Hills, in terms of the open-space ratios, was the 'best' provided with respect to recreational space, followed by Westville, then Sea View, Westcliff and Sparks Estate. A more detailed examination of the open-space provision in these areas revealed, however, that these open-space ratios were misleading, as most of the study groups had 'inflated' or 'exaggerated' open-space ratios

in terms of the availability of usable recreation space. Much of the open-space in, for example, Westcliff and Reservoir Hills was totally unusable for any recreational development. As stated earlier, open-space standard data could, unfortunately, not be obtained for the KwaMashu study area. Other recreation facility data for the area indicate that the open-space ratio for KwaMashu would have been far below those of the other study areas and probably below the Durban and Westville Municipal standards as well.

Although all the study areas, except for Austerville and KwaMashu, appeared to be recreationally well provided for in terms of the normative open-space standards, respondents in these study groups, as well as those in Austerville and KwaMashu, felt that they were in need with respect to recreation facility provision in their areas. Importantly, these felt needs differed from study group to study group. Respondents in the low income coloured area of Austerville wanted facilities close at hand for some of their usual activities (e.g., a cinema), whereas Sparks Estate respondents wanted to have facilities which would allow them new recreation pursuits (e.g., squash courts). Westcliff respondents, on the one hand, wanted a swimming pool and park -- Reservoir Hills respondents, on the other hand, felt that their area needed cinemas and tennis courts. As far as the white study groups were concerned, their recreation facility needs also differed, with Sea View respondents wanting a park, squash courts and sportsfields, while Westville respondents felt that they needed facilities such as a golf course and cinema, to name but a few. These findings point to the danger of using normative recreation need standards alone as indicators of recreation need. Some assessment must be made of communities' felt recreation needs in the system of recreation facility provision.

## 6.5 OVERVIEW

In this chapter, data on range and frequency of recreation activities, transport mode, transport satisfaction and recreation need were added to physical distance and direction data so that comprehensive activity space profiles could be compiled for the study groups. The analysis of these recreation activity space profiles within a welfare or socio-spatial justice framework provided a number of interesting insights into the recreation behaviour patterns of the study groups.

The data showed that the recreation facilities or resources were not equitably distributed amongst the study groups. The number and quality of recreation facilities in the study areas varied greatly, with the greatest disparity occurring between Westville, the high income white study area, and the low income coloured, Indian and black study areas. KwaMashu appeared to be severely underprovided with respect to recreation facilities and especially so in relation to the white areas of Westville and Sea View, which either had many and varied recreation resources or had such resources near at hand and the means to reach them. Although KwaMashu appeared to be 'worst-off' with respect to recreation facility provision, respondents in this area had the greatest degree of involvement and the highest frequency of participation in recreation activities. Westville, similarly, showed a far higher involvement rate, with respect to most of the activities they engaged in, than the other study groups (with the exception of KwaMashu). Level of recreation facility provision, then, does not seem to be a determining factor with respect to recreation involvement patterns, although the type of activity engaged in may differ

considerably. With respect to transport mode, the data showed that respondents in the lower income areas tended to make greater use of public transport when participating in recreation activities than did respondents in higher income areas, with Westcliff and KwaMashu respondents being the greater users of public transport. The private car was the predominant transport mode used for recreation in the study areas of Westville, Sea View and Reservoir Hills.

The mapped recreation activity spaces of the study groups, presented in section 6.3 of this chapter, revealed the respondents' collective expressed needs, in that these mapped activity spaces were a statement of the extent to which the study groups were able to express and satisfy their recreation needs using various available resources. As far as radial distances were concerned, no general pattern emerged -- i.e., greater radial distances were not always associated with the lower income or 'poorer' study groups. Reservoir Hills respondents appeared to travel further than did respondents in the other study groups and respondents in the two white areas of Sea View and Westville appeared to travel very little. KwaMashu, the group which Chapters Four and Five showed to be socio-economically 'worst-off', did however, emerge as having had the most constrained recreation activity movement pattern.

An analysis of the recreation activity space patterns of the study groups within a welfare framework (as outlined in Chapter Two of this dissertation) indicated that these movement patterns were generated by a number of interacting factors. These are, in essence, the differential effects of Apartheid policy on the various population groups and

the 'wealth' or general socio-economic condition of the study groups. While income and other socio-economic variables were shown, in Chapters Four and Five, not to relate strongly to recreation activity preference patterns, socio-economic conditions do appear to have some possible value in terms of recreation movement, frequency and regularity. From the study groups' recreation activity space data, it was apparent that the Apartheid policy acted to reduce or limit recreation opportunities, with the white study groups being the least limited or constrained. It appeared, however, that where the study groups had the means to do so (i.e., the money and suitable transport) -- as in the case of the upper income Indian study group of Reservoir Hills, and to a lesser extent the coloured groups of Austerville and Sparks Estate -- they were partially able to overcome the spatial and social constraints of the 'Apartheid City'. But,only in so far as they had the means to reach the recreation facilities or opportunities available in other areas.

As far as recreation need is concerned, this chapter showed the danger of using only normative recreation need standards as assessors of recreation need. The felt and expressed recreation needs of the communities for whom authorities wish to supply recreation facilities must be assessed and taken into account, as they vary considerably and are the result of a complex of interacting social, political and geographical factors.

# CHAPTER SEVEN

# CONCLUSION

This chapter aims to review only the major findings of the study, as detailed summaries are available at the end of each chapter. The theoretical contributions of the study are reviewed first, after which an overview of the empirical findings is offered. Finally, and in order to offer something of the balance of a synthesis, the relationship between the theoretical and empirical conclusions is considered.

## 7.1 THEORETICAL CONTRIBUTIONS

The central concern of this dissertation has been to provide an assessment and comparison of the recreation needs of the seven selected study groups. The first step in addressing this aim was to find an appropriate framework within which to couch and analyse recreation behaviour. A detailed consideration of the field of recreation research revealed it to be theoretically barren. Most recreation studies have been entirely empirical, little attempt having been made to provide a coherent theory either of, or in, recreation. The result has been considerable confusion in much of the empirical work.

It is argued in this dissertation that such a lack of theory and resultant empirical confusion is due, to a large extent, to the problematic nature of the recreation phenomenon. This study has proposed (and empirically supported) the contention that recreation is a multi-dimensional, multi-variate, socio-geographic phenomenon which defies easy or simplistic definition, study and explanation. It has further proposed

a theoretical framework, based on the concepts of 'need', 'welfare' and recreation activity space, which offers an explanation of recreation and its geography as integral elements of social life. This framework of 'Socio-Spatial Justice' is, it is felt, particularly appropriate in the South African context, where the application of the Apartheid policy has led to social and spatial injustices with respect to recreation (and other) resources.

Each of the three foundation concepts of the framework deals with a specific aspect of recreation. Need theory emphasises the importance of recreation in human experience and focuses attention on the generation of recreation activities. Welfare relates to the problem of resource distribution and deals specifically with the issue of whose needs (and what kind of needs) should be satisfied, and where. The third theoretical area of the framework, that of recreation activity space, embraces both the need and welfare aspects of recreation and provides a coherent way of assessing expressed recreation needs and the relative recreation well-being (or ill-being) of the groups under study. Comprehensive recreation activity spaces -- i.e., those which measure all aspects of human spatial interaction -- are able to reveal the complex of social, economic and political factors impinging on an individual's or group's attempts to satisfy needs in space. As such, they are very useful and powerful analytical tools in the geographical analysis of human well-being.

## 7.2 EMPIRICAL FINDINGS

As stated earlier, the aim of this study has been to make an assessment of relative recreation deprivation through the compilation, mapping and comparison of the recreation activity space profiles of seven study groups. More specifically, the

compilation and analysis of comprehensive recreation activity space profiles enabled an assessment to be made of the expressed, felt and normative needs of the study groups. Such an assessment of needs, in turn, give insights into the effect which government policy has on the quality of the recreation environment and ultimately on the satisfaction of recreation needs.

### 7.2.1 Recreation activity preference patterns

The kinds of recreation activities undertaken by the seven study groups cut across both socio-economic and 'ethnic' considerations. Indeed, most activities were common to many of the seven groups. The data in this study suggest that recreation preference patterns cannot be easily accounted for in terms of the usual socio-economic variables, such as age, income, education and the like. None of these variables, neither singularly, nor jointly, appear to account for the phenomenon of recreation. Such socio-economic variables do, however, have some explanatory value with respect to recreation movement patterns. The economic conditions of the study groups seemed to have some effect on the geography of their recreation behaviour. This chapter will now turn to a review of the basic dynamic of recreation activity spaces, namely the recreation movement patterns of the study groups.

### 7.2.2 Expressed recreation need

The mapped recreation activity spaces of the seven study groups presented in this dissertation represent their collective expressed recreation needs and are a statement of the extent to which the study groups, at the time of the study, were able to express and satisfy their recreation needs, using available resources.

An analysis of these recreation movement patterns reveals that they were generated by two interacting factors, namely the

differential effects of the Apartheid policy on the population groups and the general socio-economic status of the study groups. It is apparent from these recreation activity space data that the Apartheid policy acts to reduce recreation opportunities, the white study groups being the least limited of all the groups. The whites in the study, while having the means to travel extensively for recreation purposes, did not do so, as sufficient recreation opportunities to satisfy their recreation needs were available relatively close to their homes.

In the case of the coloured, Indian and black study groups, opportunities to satisfy their recreation needs were fewer and existed, generally, in areas relatively far from home. It appears that where these groups have the economic means to do so -- as in the case of the upper income Indian and coloured groups -- they are able to partially overcome the spatial and social constraints of the 'Apartheid City'. The black study group of KwaMashu emerged, not unexpectedly, with the most constrained recreation activity movement pattern of the study groups.

### 7.2.3 Normative and felt recreation need

A consideration of the 'normative' open-space standards applied by the relevant municipalities to all the study groups (with the exception of KwaMashu) revealed them to be an inadequate means of assessing recreation need. Open-space ratios are misleading, as much of the allocated recreation space, in many of the study areas, is totally unusable for any recreational purposes.

An open-space standard was not available for the black study group of KwaMashu. Other recreation facility data for the area suggest, however, that KwaMashu's open-space ratio is

substantially below those of the other study groups and below the Municipal standards.

Such normative open-space standards do not reveal much about the quality of recreation environments. Other data in the study show that recreation facilities were, at the time of the study, inequitably distributed amongst the study groups. The number and quality of recreation facilities in the study areas varied considerably. The upper income white study area emerged as the most advantaged with respect to recreation facility provision, with the low income coloured, Indian and black study areas being amongst the most disadvantaged. KwaMashu appears to be severely underprovided with respect to recreation facilities of all kinds, and especially so in relation to the white areas which have ample facilities available in the immediate residentail area or in easily accessible neighbouring areas.

Although only one of the study groups (Austerville) emerged as being recreationally 'in need' according to the normative open-space standards, all the study groups felt that they were in need with respect to recreation facilities in their areas of residence. Furthermore, these felt needs differed quite considerably from study group to study group. These findings highlight the danger of assessing recreation need by normative means alone. Such findings also point to the necessity of measuring and heeding communities' felt recreation needs, if those responsible for the provision of recreation facilities wish to answer and satisfy 'real' recreation need.

## 7.3 THE RELATIONSHIP BETWEEN THE THEORETICAL AND EMPIRICAL ASPECTS OF THE STUDY

The theoretical framework, outlined in this dissertation, points to the importance of assessing recreation need and proposes the use of Bradshaw's (1972) taxonomy of normative, felt, expressed and comparative need in measuring recreation need. This study (using the specific research design appropriate to activity space investigation) has attempted to do this through the compilation and analysis of the study groups' recreation activity space profiles. The empirical results of this analysis suggest that such an approach to recreation need is useful and, indeed necessary, if 'real' recreation need is to be accurately assessed. The data confirmed the theoretical proposition that while none of these need categories alone accurately defines recreation need, used together they provide an effective and accurate 'picture' of recreation needs.

As far as 'welfare' and recreation are concerned, the theoretical framework proposes that who you are in the 'Apartheid City' determines, to a large extent, what and how much you will get in terms of resources.

The recreation activity space data reveal that recreation resources are not equitably distributed amongst the study groups and, indeed, that the whites are more advantaged with respect to both the number and quality of, and the ease of accessibility to, recreation resources.

In short, the empirical data of this survey appear to lend quite considerable support to the theoretical framework and show it to be an appropriate and useful means of approaching the study of recreation, especially in the South African context.

## 7.4 FINDINGS AND AIMS OF THE STUDY

It is felt that this study has achieved its aims as set out in the opening chapter of the dissertation. The collective mapping and analysis of the recreation activity space profiles enabled an assessment of the expressed recreation needs of the study groups and uncovered some of their felt needs. Recreation activity space analysis also provided a means whereby recreation patterns of the study groups could be compared and enabled an assessment of the relative 'welfare' status of their recreation experiences. The research has shown that the study groups differed with respect to the quality, quantity and variety of recreation environments which they had access to and enjoyed. Recreation activity space analysis reveals, furthermore, that the effects of the Apartheid policy are certainly evident in the geography of the study groups' recreation behaviour. The policy appears to reduce recreation opportunities and is a contributory casual factor in the kinds of recreation movement patterns which emerged for the study groups.

## 7.5 IMPLICATIONS OF THE FINDINGS

The findings of the study have both theoretical and empirical implications. The study shows that the complex phenomenon of recreation can, and must be, studied within and be related to a coherent theoretical framework if empirical studies are to make any real contribution to the field of recreation research. The framework proposed in the dissertation has proved to be a very useful one in the study and understanding of recreation and its geography. No theoretical framework is, however, the final answer to the complete understanding of any phenomenon. This is especially so in the case of a phenomenon as complex and elusive as recreation. While recreation

activity space analysis, within a socio-spatial justice framework, has provided valuable insights into the recreation behaviour patterns of the study groups, it is not able to interpret the meaning of these recreation patterns to those who made them. Extensive research is still needed to develop an experiential approach to research and analysis, which will focus on and capture the meaning of recreation experiences to the individual. This development would mean a shift in focus and analysis to micro- rather than meso- or macro-scale recreation patterns. Such an analysis may well come closest to a complete understanding of the recreation phenomenon.

The empirical findings of the study have important implications for those responsible for recreation facility provision. The study has shown that communities do have expressed and felt recreation needs which are measurable and which do not always necessarily coincide with the authorities' normative need assessments. Planners and policy-makers in the recreation field should, therefore, take cognisance of these other need categories, if they wish to answer more effectively communities' recreation needs.

Amongst other things, this study has shown that recreation and the facilities which recreators use, are not luxuries or superfluous elements in the broad webb of society and social interactions. It has been a further aim of this research to show that, as an essential part of society, recreation is also an element of experience, influenced strongly -- not least in its geographical manifestations -- by broader socio-political ideologies and practices. If none other than these two points have been demonstrated then an important step will have been taken towards establishing both the need for, and the means of, providing a socially based theory for the geography of recreation.

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# APPENDIX 1 : THE QUESTIONNAIRE

**RECREATION DEMAND AND PREFERENCE SURVEY**

**DEPARTMENT OF SPORT AND RECREATION**

Due to the increasing importance of recreation, it has been decided to carry out a survey amongst the various population groups in South Africa in order to establish the nature and extent of the public's recreation needs, so that, with a view to the tremendous population growth, provision for the necessary recreation facilities in your environment could be made well in time.

In order to enable the Department to form a true picture of the country's recreation needs, it is essential that the information thus gathered, will be as accurate as possible. Your friendly co-operation in this regard will be sincerely appreciated.

SECRETARY FOR SPORT AND RECREATION

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Enumerator [ ]

**SECTION A : PERSONAL INFORMATION**

1. Are you [ASIAN 1] [BLACK 2] [COLOURED 3] [WHITE 4]

2. Are you a [MALE 1] [FEMALE 2]

3. Is your home language [AFRIKAANS 01] [ENGLISH 02] [PORTUGUESE 03] [GUJERATI 04] [HINDI 05] [KEEBELE 06] [SEPEDI 07] [SHANGAAN 08] [SOUTH-SOTHO 09] [SWAZI 10] [TSWANA 11] [TAMIL 12] [TELEGU 13] [VENDA 14] [XHOSA 15] [ZULU 16] [OTHER 17] SPECIFY _____

4. How old are you? [15-19 1] [20-29 2] [30-39 3] [40-49 4] [50-64 5] [65+ 6]

5. Which of the following standards of education have you completed?
[LESS THAN STD. 8 1] [STD. 8 2] [STD. 10 3] [TECH. DIPLOMA 4] [POST MATRIC DIPLOMA 5] [DEGREE 6] [POST GRAD. DEGREE 7]

6. What is your occupation? _____

7. Are you [SINGLE 1] [MARRIED 2] [PREVIOUSLY MARRIED, NOW SINGLE 3]

8. What is the size of you nuclear family? [1] [2] [3] [4] [5] [6] [7+]

9. What is your nationality? _____

10. In what town/suburb do you live? _____ AREA CODE _____

**SECTION B : RECREATION DEMAND AND PREFERENCE INFORMATION**

11. How often do you go away, for recreational purposes, for a day or less (eg. for a Sunday drive, or for a Saturday afternoon)?
[EVERY WEEK 1] [EVERY TWO WEEKS 2] [ONCE A MONTH 3] [EVERY FEW MONTHS 4] [NEVER 5]

12. Would you like to go on such trips?
[MORE FREQUENTLY 1] [SAME FREQUENCY 2] [LESS FREQUENTLY 3]

13. If you would like to go MORE FREQUENTLY, what presently prevents you from doing so? Rate the following considerations, using '1' for the most important, '2' for the next most important and so on.
[PETROL RESTRICTIONS 1] [COSTS TOO HIGH 2] [TIME LIMITATIONS 3] [LACK OF PLACES 4] [PLACES TOO CROWDED 5]
[OTHER 6] (Specify) _____

14. Do you use [OWN PRIVATE TRANSPORT 1] [OTHER PRIVATE TRANSPORT 2] [PUBLIC TRANSPORT 3] for daily recreational trips.

15. In the following schedule, please mark the following information:
(i) The sorts of places (i.e. beach, fields, mountains) to which you go on day or half day recreational jaunts, and the activities you undertake while at those places. Use a large cross in the appropriate points.
(ii) Mark the size of the group you are USUALLY IN when you undertake those activities at those places.
(iii) Mark the specific places (e.g. Addington Beach, Loftus Versveld, etc.) at which you undertake these activities.
(iv) Indicate the distances and travelling times involved in reaching the above mentioned places.
(v) Show, using a scoring system of 1,2,3 and so on, the activities you like most (1), next most(2), then next most (3), to the very least.
(vi) The seasons in which you undertake the activities.

16. If you have a day or less free to spend on recreational activities, would you prefer to
[SPEND IT AT HOME 1] [SPEND IT AWAY FROM HOME 2]

Short periods of relaxation are relatively easy to slip into a busy schedule, but now and then you may take a longer break - and do different things. The next set of questions is about such periods of recreation.

17. How often do you go away for a few days (e.g. weekend, long weekend, or a few days in the middle of the week)?
[TWICE A MONTH 1] [ONCE A MONTH 2] [EVERY TWO MONTHS 3] [FOUR TIMES A YEAR 4] [TWICE A YEAR 5] [ONCE A YEAR 6]
[OTHER 7] (Specify) _____

18. Would you like to go on such trips [MORE FREQUENTLY 1] [SAME FREQUENCY 2] [LESS FREQUENTLY 3]

19. If you would like to go MORE FREQUENTLY, what presently prevents you from doing so? Rate the following considerations, using '1' for the most important, '2' for the next most important and so on.
[PETROL RESTRICTIONS 1] [COSTS TOO HIGH 2] [TIME LIMITATIONS 3] [LACK OF PLACES 4] [PLACES TOO CROWDED 5]
[OTHER 6] (Specify) _____

20. Do you use [OWN PRIVATE TRANSPORT 1] [OTHER PRIVATE TRANSPORT 2] [PUBLIC TRANSPORT 3] for weekend recreational trips.

21. Please fill out the following schedule as you did for question 13, BUT REMEMBER THAT YOU ARE NOW INDICATING INFORMATION ABOUT PLACES AND ACTIVITIES THAT YOU GO TO AND UNDERTAKE WHEN YOU GO AWAY FOR TWO, OR FOUR DAYS.

22. If you had a few days free to spend on recreational activities, would you prefer to
[SPEND THEM AT HOME 1] [SPEND THEM AWAY FROM HOME 2]

Now and then you may be able to take a longer break - your biennial, annual or biannual holiday. The next set of questions is about such holidays.

23. How often do you go away for a break of a week or more?
[FOUR TIMES A YEAR 1] [TWO TIMES A YEAR 2] [ONCE A YEAR 3] [EVERY 18 MONTHS 4] [EVERY TWO YEARS 5]
[OTHER 6] (Specify) _____

24. Would you like to go on such trips
[MORE FREQUENTLY 1] [SAME FREQUENCY 2] [LESS FREQUENTLY 3]

25. If you would like to go MORE FREQUENTLY, what presently prevents you from doing so? Rate the following considerations, using '1' for the most important, '2' for the next most important and so on.
[PETROL RESTRICTIONS 1] [COSTS TOO HIGH 2] [TIME LIMITATIONS 3] [LACK OF PLACES 4] [PLACES TOO CROWDED 5]
[OTHER 6] (Specify) _____

26. Do you use [OWN PRIVATE TRANSPORT 1] [OTHER PRIVATE TRANSPORT 2] [PUBLIC TRANSPORT 3] for vacation trips.

27. Please fill out the following schedule as you did for question 13 and 16, BUT REMEMBER THAT YOU ARE PROVIDING INFORMATION ABOUT LONGISH HOLIDAYS AND NOT ABOUT SHORTER PERIODS.

28. If you had a week or more free to spend on recreational activities, would you prefer to
[SPEND THE TIME AT HOME 1] [SPEND THE TIME AWAY FROM HOME 2]

**SECTION C : GENERAL INFORMATION**

29. What recreational facilities would you like to have but are not presently available

| | FIRST PREFERENCE | SECOND PREFERENCE |
|---|---|---|
| a) close to your home 1 | | |
| b) within a short (1 hr) drive 2 | | |
| c) within a half-day drive 3 | | |
| d) within a day drive 4 | | |

30. What, in your opinion, are the shortcomings of the present recreational facilities in your immediate area?

_____

31. Into which of the following brackets does your HOUSEHOLD income fall?
[R0 - 3000 p.a. 1] [R3001- 6000 p.a. 2] [R 6001-9000 p.a. 3] [R 9001-12000p.a. 4] [R12001-15000 p.a. 5] [R15001+ 6]

Time Period | 1 | 2 | 3 |

| SORTS OF PLACES \ ACTIVITIES | 01 Surfing | 02 Scuba diving & related | 03 Swimming | 04 Boating | 05 Fishing | 06 Motor-sailing | 07 Urban Walking | 08 Rural Walking | 09 Horse Riding | 10 Mountain-eering | 11 Sightseeing | 12 Driving/ Motoring | 13 Caravanning/ Camping | 14 Picnicking | Photography/ Painting/ Bird watching/ Nature study etc. 15 | 16 Playing Sport | 17 Watching Sport | 18 Indoor games | 19 Relaxing (Reading, Sunbathing etc.) | 20 Visiting friends and relations | 21 Other (Specify) e.g. church going |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 Beaches | | | | | | | | | | | | | | | | | | | | | |
| 02 Sports Fields Stadia | | | | | | | | | | | | | | | | | | | | | |
| 03 Rivers/River Sides | | | | | | | | | | | | | | | | | | | | | |
| 04 Dams/Lakes | | | | | | | | | | | | | | | | | | | | | |
| 05 Open Fields/ Countryside & Farms | | | | | | | | | | | | | | | | | | | | | |
| 06 Mountains | | | | | | | | | | | | | | | | | | | | | |
| 07 City Parks | | | | | | | | | | | | | | | | | | | | | |
| 08 Out of City Parks and Holiday Resorts | | | | | | | | | | | | | | | | | | | | | |
| 09 Game Reserves Nature Reserves | | | | | | | | | | | | | | | | | | | | | |
| 10 Other (Specify) | | | | | | | | | | | | | | | | | | | | | |

Time Period 1 2 3

| SORTS OF PLACES \ ACTIVITIES | 01 Surfing | 02 Scuba diving & related | 03 Swimming | 04 Boating | 05 Fishing | 06 Motor-sailing | 07 Urban Walking | 08 Rural Walking | 09 Horse Riding | 10 Mountain-eering | 11 Sightseeing | 12 Driving/ Motoring | 13 Caravanning/ Camping | 14 Picnicking | 15 Photography/ Painting/ Bird watching Nature study etc. | 16 Playing Sport | 17 Watching Sport | 18 Indoor games | 19 Relaxing (Reading, Sunbathing etc.) | 20 Visiting friends and relations | 21 Other (Specify) e.g. church going |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 Beaches | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 02 Sports Fields Stadia | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 03 Rivers/River Sides | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 04 Dams/Lakes | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 05 Open Fields/ Countryside & Farms | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 06 Mountains | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 07 City Parks | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 08 Out of City Parks and Holiday Resorts | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 09 Game Reserves Nature Reserves | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |
| 10 Other (Specify) | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % | % |

Time Period 1 2 3

| SORTS OF PLACES \ ACTIVITIES | 01 Surfing | 02 Scuba diving & related | 03 Swimming | 04 Boating | 05 Fishing | 06 Motor-walking | 07 Urban Walking | 08 Rural Walking | 09 Horse Riding | 10 Mountain-eering | 11 Sightseeing | 12 Driving/ Motoring | 13 Caravanning/ Camping | 14 Picnicking | 15 Photography/ Painting/ Bird watching Nature study etc. | 16 Playing Sport | 17 Watching Sport | 18 Indoor games | 19 Relaxing (Reading, Sunbathing etc.) | 20 Visiting friends and relations | 21 Other (Specify) e.g. church going |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 Beaches | | | | | | | | | | | | | | | | | | | | | |
| 02 Sports Fields Stadia | | | | | | | | | | | | | | | | | | | | | |
| 03 Rivers/River Sides | | | | | | | | | | | | | | | | | | | | | |
| 04 Dams/Lakes | | | | | | | | | | | | | | | | | | | | | |
| 05 Open Fields/ Countryside & Farms | | | | | | | | | | | | | | | | | | | | | |
| 06 Mountains | | | | | | | | | | | | | | | | | | | | | |
| 07 City Parks | | | | | | | | | | | | | | | | | | | | | |
| 08 Out of City Parks and Holiday Resorts | | | | | | | | | | | | | | | | | | | | | |
| 09 Game Reserves Nature Reserves | | | | | | | | | | | | | | | | | | | | | |
| 10 Other (Specify) | | | | | | | | | | | | | | | | | | | | | |

PART 2

1. Approximately how much time, other than work and sleep time, do you have at your disposal daily?

| Less than 1 hr | 2 hrs | 3 hrs | 4 hrs | 5 hrs | between 6 & 10 hrs |
|---|---|---|---|---|---|

2. If employed: N/A

(i) At what time do you leave home for work? _____

(ii) At what time do you return home? _____

(iii) How many days a week do you work? _____

(iv) Do you work over weekends) Yes | No

(v) If so, how often: (e.g. once a month, twice a month .....)

_____

(vi) How many days annual leave do you get? _____

(vii) Do you usually use them: All at once | Spread through the year

3a) (i) What recreational facilities exist in your immediate area?

_____

_____

(ii) Do you make use of them Yes | No

(iii) If not, why not? _____

(iv) At present, what recreational facilities would you like to have:

| | 1st Pref | 2nd Pref | 3rd Pref |
|---|---|---|---|
| a) Within walking distance of your home | | | |
| b) Within 15 minutes drive | | | |
| c) Within ½ hour drive | | | |

3b) (i) Would you like more time for recreation?

| Yes | No |
|---|---|

(ii) If so, how much more time? _____

(iii) How would you use this increased recreation time?

_____

_____

4. (i) On the following indicate the extent to which current petrol restrictions have affected your recreational activities:

a)

| Great Bad Effect on Recreation | No Effect | Great Good Effect on Recreation |
|---|---|---|

b)

| Travel for Recreational Purposes Reduced | Travel Same | Travel for Recreational Purposes Increased |
|---|---|---|

c)

| No. of Recreational Activities Reduced | No. Same | No. of Recreational Activities Increased |
|---|---|---|

(ii) If some impact on recreation has been experienced as a result of petrol restrictions, specify the activities affected.

_____

_____

_____

_____

5. How much do you currently spend per month, on recreation?

| Less than R5 | R5-R15 | R15-25 | R25-50 | R50-R100 | R100+ |
|---|---|---|---|---|---|

6. Rate on the following scales the extent to which you like to recreate with the following people:

a) On your own

| Dislike | Don't mind/Don't know | Like |
|---|---|---|

Comment: .....

b) With a small group of people

| Dislike | Don't mind/Don't know | Like |
|---|---|---|

Comment: .....

c) With a large group of people

| Dislike | Don't mind/Don't know | Like |
|---|---|---|

d) With the public in general

| Dislike | Don't mind/Don't know | Like |
|---|---|---|

7. (i) How long have you lived in this area? _____

(ii) If you have not always lived in this area: N/A

a) Where did you live before? _____

b) How long did you live there? _____

c) Since changing your area of residence do you participate in:

| More recreational activities | Fewer recreational activities |
|---|---|
| The same numer of activties but more frequently | |
| The same number of activities but less frequently | |

8. (i) Do you use your garden for recreational activities? | Yes | No |

(ii) If you do, specify the kind of activities: | N/A |

_____

_____

_____

_____

(iii) If you do not, state why not: | N/A |

_____

_____

_____

_____

(iv) If you had the choice, which of the following locations would you choose to carry out a recreational activity(ies):

| | |
|---|---|
| a | in your garden? |
| b | at a local recreational facility? |
| c | at a recreational facility outside of your immediate area? |

(v) State the reasons for your choice.

_____

_____

_____

_____

| MOST | ACTIVITY | PARTICIPATION AND PARTICIPANTS | | | | | ADDRESS | | | | TRANSPORT | | FREQUENCY | | | QUALITY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LEISURE | 'A or don't do | Would you like to do? | If yes, why don't you? | How long has activity been done? | Who do you do this activity with? | Address of activity | Why this area was chosen | If the area is not suitable, where would you move the activity to | Why? | Mode | Are there any transport problems? Specify | How frequent is the activity? | Hrs | If this is not suitable, how would you change it? | Would you say the quality of the facilities is good or bad? | Why? |
| ☐ | Cinema | | | | | | | | | | | | | | | | |
| ☐ | Drive-in | | | | | | | | | | | | | | | | |
| ☐ | Dining out | | | | | | | | | | | | | | | | |
| ☐ | Dancing | | | | | | | | | | | | | | | | |
| ☐ | Pubs | | | | | | | | | | | | | | | | |
| ☐ | TV | | | | | | | | | | | | | | | | |
| ☐ | Hobbies & Crafts | | | | | | | | | | | | | | | | |
| ☐ | Visiting friends | | | | | | | | | | | | | | | | |
| ☐ | Private Clubs | | | | | | | | | | | | | | | | |
| ☐ | Other (Specify) | | | | | | | | | | | | | | | | |

Of the above activities, which do you enjoy doing most?

| MOST | ACTIVITY | PARTICIPATION AND PARTICIPANTS | | | | | | | ADDRESS | | | | TRANSPORT | | FREQUENCY | | | QUALITY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SPORTS | H/I or How I do | Would you like to do? | If you, why don't you? | Participant | Spectator | How long has activity been done? | When do you do the activity with? | Address of activity | Why this area chosen | If the area is not suitable, where would you change the activity to | Why? | Mode | Are there any transport problems? Specify | How frequent is the activity? | Hrs | If this is not suitable, how would you change it? | Would you say the quality of the facilities is good or bad | Why? |
| ☐ | Golf | | | | | | | | | | | | | | | | | | |
| ☐ | Bowls | | | | | | | | | | | | | | | | | | |
| ☐ | Hockey | | | | | | | | | | | | | | | | | | |
| ☐ | Cricket | | | | | | | | | | | | | | | | | | |
| ☐ | Soccer | | | | | | | | | | | | | | | | | | |
| ☐ | Rugby | | | | | | | | | | | | | | | | | | |
| ☐ | Basketball | | | | | | | | | | | | | | | | | | |
| ☐ | Track sports | | | | | | | | | | | | | | | | | | |
| ☐ | Tennis | | | | | | | | | | | | | | | | | | |
| ☐ | Squash | | | | | | | | | | | | | | | | | | |
| ☐ | Table Tennis | | | | | | | | | | | | | | | | | | |

Of the above activities, which do you enjoy doing most?

# APPENDIX 2 : SUPPLEMENTARY TABLES FOR CHAPTERS FOUR AND FIVE

# APPENDIX 2

LIST OF TABLES PAGE

APPENDIX 2 CONTINUED

LIST OF TABLES

| AGE (YEARS) \ POPULATION GROUPS | COLOURED % | INDIAN % | WHITE % | BLACK % |
|---|---|---|---|---|
| 15-19 | 21 | 10 | 8 | 22 |
| 20-29 | 38 | 34 | 14 | 26 |
| 30-39 | 20 | 26 | 38 | 26 |
| 40-49 | 15 | 20 | 27 | 15 |
| 50-64 | 4 | 8 | 8 | 8 |
| 65+ | 2 | 2 | 5 | 3 |
| N | 200 | 200 | 200 | 200 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 1 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY AGE STRUCTURE, FOR THE POPULATION GROUPS

| POPULATION GROUPS / GENDER | COLOURED % | INDIAN % | WHITE % | BLACK % |
|---|---|---|---|---|
| MALE | 52 | 38 | 50 | 47 |
| FEMALE | 48 | 62 | 50 | 53 |
| N | 200 | 200 | 200 | 200 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 2 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY GENDER STRUCTURE, FOR THE POPULATION GROUPS

| STUDY GROUPS / PLAYER SPECTATOR | COLOURED | | | | INDIAN | | | | BLACK | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AUSTERVILLE | | SPARKS ESTATE | | WESTCLIFF | | R. HILLS | | KWAMASHU | |
| | M % | F % | M % | F % | M % | F % | M % | F % | M % | F % |
| PLAYER | 38 | - | 35 | - | 48 | - | 33 | - | 17 | - |
| SPECTATOR | 62 | 100 | 65 | 100 | 52 | 100 | 47 | 100 | 83 | - |
| PLAYER AND SPECTATOR | - | - | - | - | - | - | 20 | - | - | 100 |
| N | 21 | 3 | 28 | 15 | 31 | 4 | 15 | 12 | 77 | 32 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

M = MALE
F = FEMALE

TABLE 3 : PERCENTAGE DISTRIBUTION OF SOCCER ACTIVITY RESPONDENTS, SHOWING PLAYER/SPECTATOR PARTICIPATION FOR MALES AND FEMALES OF THE COLOURED, INDIAN AND BLACK STUDY GROUPS

| STUDY GROUPS / ECONOMIC STATUS | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | ASHERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| HOUSEWIFE | 41 | 58 | 64 | 67 | 71 | 72 | 28 |
| STUDENT/SCHOLAR | 52 | 38 | 17 | 24 | 23 | 28 | 29 |
| RETIRED PERSON | 3 | 0 | 6 | 5 | 6 | 0 | 6 |
| UNEMPLOYED | 3 | 4 | 14 | 4 | 0 | 0 | 37 |
| N | 29 | 24 | 36 | 52 | 62 | 32 | 94 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

TABLE 4 : PERCENTAGE DISTRIBUTION OF 'NOT ECONOMICALLY EMPLOYED' RESPONDENTS BY ECONOMIC STATUS, FOR THE STUDY GROUPS

| STUDY GROUPS / TOTAL MONTHLY RECREATION EXPENDITURE (IN RAND) | COLOURED | | INDIAN | | WHITE | | BLACK |
|---|---|---|---|---|---|---|---|
| | AUSTERVILLE % | SPARKS ESTATE % | WESTCLIFF % | RESERVOIR HILLS % | SEA VIEW % | WESTVILLE % | KWAMASHU % |
| LESS THAN 5 | 11 | 12 | 14 | 12 | 17 | 5 | 43 |
| 5 - 15 | 41 | 26 | 23 | 34 | 27 | 11 | 52 |
| 16 - 25 | 27 | 22 | 36 | 13 | 24 | 24 | 4 |
| 26 - 50 | 15 | 25 | 23 | 17 | 14 | 32 | 1 |
| 51 - 100 | 6 | 9 | 3 | 10 | 17 | 17 | 0 |
| 101+ | 0 | 6 | 1 | 14 | 1 | 11 | 0 |
| N | 100 | 100 | 100 | 100 | 100 | 100 | 198 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

TABLE 5 : PERCENTAGE DISTRIBUTION OF RESPONDENTS BY TOTAL MONTHLY HOUSEHOLD RECREATION EXPENDITURE (1980), FOR THE STUDY GROUPS

| DAILY WORK ACTIVITY (IN HOURS) \ POPULATION GROUPS | COLOURED % | INDIAN % | WHITE % | BLACK % |
|---|---|---|---|---|
| 1 - 5 | 1 | 0 | 4 | 0 |
| 6 - 8 | 25 | 20 | 12 | 3 |
| 9 - 11 | 47 | 55 | 74 | 42 |
| 12 - 14 | 23 | 21 | 10 | 50 |
| 15 - 17 | 4 | 4 | 0 | 4 |
| 18 - 20 | 0 | 0 | 0 | 1 |
| 21 - 24 | 0 | 0 | 0 | 0 |
| Other: Irregular work hours, etc. | 0 | 0 | 0 | 0 |
| N | 137 | 101 | 106 | 104 |
| MISSING DATA % | 0 | 0 | 0 | 1 |

TABLE 6 : PERCENTAGE DISTRIBUTION OF ECONOMICALLY EMPLOYED RESPONDENTS BY HOURS SPENT ON DAILY WORK ACTIVITY, FOR THE POPULATION GROUPS

| NUMBER OF WORK-DAYS \ POPULATION GROUPS | COLOURED % | INDIAN % | WHITE % | BLACK % |
|---|---|---|---|---|
| ½ DAY | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 2 | 0 | 1 | 2 | 1 |
| 3 | 0 | 1 | 1 | 0 |
| 4 | 0 | 3 | 1 | 4 |
| 5 | 81 | 60 | 82 | 70 |
| 6 | 12 | 34 | 11 | 22 |
| 7 | 7 | 1 | 3 | 3 |
| N | 137 | 101 | 106 | 104 |
| MISSING DATA % | 0 | 0 | 0 | 1 |

TABLE 7 : PERCENTAGE DISTRIBUTION OF ECONOMICALLY EMPLOYED RESPONDENTS BY NUMBER OF WORKDAYS PER WEEK, FOR THE POPULATION GROUPS

| ANNUAL LEAVE (IN WEEKS) \ POPULATION GROUPS | COLOURED % | INDIAN % | WHITE % | BLACK % |
|---|---|---|---|---|
| 0 | 0 | 0 | 1 | 0 |
| 1 - 2 | 7 | 12 | 12 | 21 |
| 3 - 4 | 67 | 65 | 60 | 61 |
| 5 - 6 | 0 | 4 | 11 | 5 |
| 7 - 8 | 0 | 0 | 3 | 2 |
| 9 - 13 (e.g., School Vac.) | 24 | 17 | 9 | 11 |
| > 13 (e.g. Varsity Vac.) | 0 | 0 | 3 | 0 |
| No set leave (e.g., own business, etc.) | 1 | 2 | 1 | 0 |
| N | 135 | 93 | 100 | 84 |
| MISSING DATA % | 1 | 1 | 3 | 11 |

TABLE 8 : PERCENTAGE DISTRIBUTION OF ECONOMICALLY EMPLOYED RESPONDENTS BY AMOUNT OF ANNUAL LEAVE, FOR THE POPULATION GROUPS

| DAILY FREE TIME (IN HOURS) \ OCCUPATION CATEGORIES | PROFESS-IONAL TECHNICAL % | ADMIN-ISTRATIVE MANAGERIAL % | CLERICAL % | SALES % | SERVICES % | PRODUCTION TRANSPORT LABOURER % | NOT ECONOMICALLY EMPLOYED % | OTHER % | TOTAL % |
|---|---|---|---|---|---|---|---|---|---|
| 1 or less | 10 | 1 | 1 | 1 | 1 | 0 | 7 | 2 | 23 |
| 2 | 14 | 4 | 1 | 1 | 0 | 0 | 8 | 1 | 29 |
| 3 | 4 | 7 | 4 | 5 | 0 | 2 | 6 | 0 | 28 |
| 4 | 3 | 1 | 0 | 1 | 0 | 0 | 4 | 0 | 9 |
| 5 | 2 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 6 |
| 6 - 10 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| TOTAL | 33 | 14 | 7 | 8 | 1 | 2 | 32 | 3 | 100 |

N = 100
MISSING DATA = 0%

TABLE 9 : PERCENTAGE DISTRIBUTION OF WESTVILLE RESPONDENTS BY OCCUPATION CATEGORIES AND ESTIMATED DAILY FREE-TIME

| DAILY FREE TIME (IN HOURS) \ OCCUPATION CATEGORIES | PROFESS-IONAL TECHNICAL % | ADMIN-ISTRATIVE MANAGERIAL % | CLERICAL % | SALES % | SERVICES % | PRODUCTION LABOURER % | NOT ECO-NOMICALLY EMPLOYED % | OTHER % | TOTAL % |
|---|---|---|---|---|---|---|---|---|---|
| 1 or less | 0 | 0 | 0 | 2 | 0 | 2 | 3 | 2 | 9 |
| 2 | 6 | 1 | 0 | 1 | 0 | 22 | 9 | 1 | 40 |
| 3 | 10 | 0 | 2 | 1 | 1 | 7 | 1 | 0 | 22 |
| 4 | 2 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 7 |
| 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 6 - 10 | 3 | 0 | 1 | 0 | 0 | 1 | 14 | 0 | 19 |
| TOTAL | 21 | 1 | 4 | 4 | 1 | 35 | 29 | 3 | 98 |

N = 98
MISSING DATA = 2%

TABLE 10 : PERCENTAGE DISTRIBUTION OF AUSTERVILLE RESPONDENTS BY OCCUPATION CATEGORIES AND ESTIMATED DAILY FREE TIME

| DAILY FREE TIME (IN HOURS) \ OCCUPATION CATEGORIES | PROFESS-IONAL TECHNICAL % | ADMIN-ISTRATIVE MANAGERIAL % | CLERICAL % | SALES % | SERVICES % | PRODUCTION TRANSPORT LABOURER % | NOT ECONOMICALLY EMPLOYED % | OTHER % | TOTAL % |
|---|---|---|---|---|---|---|---|---|---|
| 1 or less | 2 | 0 | 0 | 0 | 1 | 0 | 10 | 1 | 14 |
| 2 | 10 | 1 | 2 | 0 | 0 | 2 | 12 | 2 | 29 |
| 3 | 4 | 0 | 0 | 1 | 0 | 1 | 17 | 0 | 23 |
| 4 | 5 | 1 | 2 | 1 | 0 | 4 | 6 | 0 | 19 |
| 5 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 | 6 |
| 6 - 10 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 1 | 8 |
| TOTAL | 21 | 2 | 5 | 2 | 1 | 8 | 55 | 5 | 99 |

N = 99
MISSING DATA = 1%

TABLE 11 : PERCENTAGE DISTRIBUTION OF RESERVOIR HILLS RESPONDENTS BY OCCUPATION CATEGORIES AND ESTIMATED DAILY FREE TIME

| DAILY FREE TIME (IN HOURS) / OCCUPATION CATEGORIES | PROFESS-IONAL TECHNICAL % | CLERICAL % | SALES % | SERVICES % | PRODUCTION TRANSPORT LABOURER % | NOT ECO-NOMICALLY EMPLOYED % | OTHER % | TOTAL % |
|---|---|---|---|---|---|---|---|---|
| 1 or less | 0 | ,5 | 1 | 4 | 3 | 3 | ,5 | 12 |
| 2 | 2 | ,5 | 2 | 6 | 8 | 8 | 1 | 27,5 |
| 3 | 2 | 3 | 1 | 5 | 4 | 11 | 0 | 26 |
| 4 | 2 | 0 | 0 | 6 | 0 | 12 | 0 | 20 |
| 5 | 0 | 0 | 0 | 1 | 0 | 8 | ,5 | 9,5 |
| 6 - 10 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| TOTAL | 6 | 4 | 4 | 22 | 15 | 47 | 2 | 100 |

N = 200
MISSING DATA = 0%

TABLE 12 : PERCENTAGE DISTRIBUTION OF KWAMASHU RESPONDENTS BY OCCUPATION CATEGORIES AND ESTIMATED DAILY FREE-TIME

| DAILY FREE TIME (IN HOURS) / OCCUPATION CATEGORIES | PROFESS-IONAL TECHNICAL % | ADMIN-ISTRATIVE MANAGERIAL % | CLERICAL % | SALES % | PRODUCTION TRANSPORT LABOURER % | NOT ECO-NOMICALLY EMPLOYED % | OTHER % | TOTAL % |
|---|---|---|---|---|---|---|---|---|
| 1 or less | 2 | 1 | 2 | 0 | 3 | 11 | 1 | 20 |
| 2 | 2 | 1 | 3 | 0 | 3 | 14 | 0 | 23 |
| 3 | 1 | 0 | 5 | 1 | 2 | 7 | 0 | 16 |
| 4 | 1 | 0 | 3 | 0 | 1 | 5 | 1 | 11 |
| 5 | 1 | 1 | 0 | 0 | 1 | 3 | 0 | 6 |
| 6 - 10 | 0 | 0 | 0 | 1 | 1 | 22 | 0 | 24 |
| TOTAL | 7 | 3 | 13 | 2 | 11 | 62 | 2 | 100 |

N = 100
MISSING DATA = 0%

TABLE 13 : PERCENTAGE DISTRIBUTION OF SEA VIEW RESPONDENTS BY OCCUPATION CATEGORIES AND ESTIMATED DAILY FREE-TIME

| DAILY FREE TIME (IN HOURS) \ OCCUPATION CATEGORIES | PROFESS-IONAL TECHNICAL % | ADMIN-ISTRATIVE MANAGERIAL % | CLERICAL % | SALES % | SERVICES % | PRODUCTION TRANSPORT LABOURER % | NOT ECONOMICALLY EMPLOYED % | OTHER % | TOTAL % |
|---|---|---|---|---|---|---|---|---|---|
| 1 or less | 1 | 1 | 2 | 2 | 0 | 5 | 3 | 0 | 14 |
| 2 | 5 | 0 | 2 | 2 | 0 | 10 | 6 | 1 | 26 |
| 3 | 4 | 0 | 4 | 0 | 1 | 7 | 3 | 0 | 19 |
| 4 | 5 | 0 | 4 | 0 | 0 | 10 | 7 | 0 | 26 |
| 5 | 1 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 6 |
| 6 - 10 | 2 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 8 |
| TOTAL | 18 | 1 | 14 | 4 | 1 | 36 | 24 | 1 | 99 |

N = 99
MISSING DATA = 1%

TABLE 14 : PERCENTAGE DISTRIBUTION OF SPARKS ESTATE RESPONDENTS BY OCCUPATION CATEGORIES AND ESTIMATED FREE TIME

| DAILY FREE TIME (IN HOURS) \ OCCUPATION CATEGORIES | PROFESS-IONAL TECHNICAL % | CLERICAL % | SALES % | SERVICES % | PRODUCTION LABOURER % | NOT ECO-NOMICALLY EMPLOYED % | OTHER % | TOTAL % |
|---|---|---|---|---|---|---|---|---|
| 1 or less | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 4 |
| 2 | 0 | 2 | 2 | 0 | 7 | 1 | 0 | 12 |
| 3 | 2 | 3 | 3 | 0 | 8 | 1 | 0 | 17 |
| 4 | 0 | 4 | 0 | 0 | 4 | 1 | 0 | 9 |
| 5 | 1 | 2 | 2 | 0 | 10 | 1 | 1 | 17 |
| 6 - 10 | 2 | 0 | 1 | 1 | 4 | 32 | 0 | 40 |
| TOTAL | 5 | 12 | 10 | 2 | 34 | 36 | 1 | 99 |

N = 99
MISSING DATA = 1%

TABLE 15 : PERCENTAGE DISTRIBUTION OF WESTCLIFF RESPONDENTS BY OCCUPATION CATEGORIES AND ESTIMATED FREE-TIME

# APPENDIX 3 : TABLES AND FIGURES FOR CHAPTER SIX

# APPENDIX 3A

LIST OF TABLES | PAGE

| FREQUENCY / MAIN RECREATION ACTIVITIES | CINEMA % | DANCING % | VISITING % | SOCCER % |
|---|---|---|---|---|
| 7 times a week (Daily) | 0 | 0 | 0 | 0 |
| 3-6 times a week | 0 | 0 | 0 | 0 |
| 1-2 times a week (Weekly) | 37 | 11 | 38 | 0 |
| Weekends only | 0 | 0 | 0 | 0 |
| 1-3 times a month (Fortnightly, Monthly) | 57 | 69 | 42 | 0 |
| 1 every 2-6 months | 6 | 20 | 4 | 0 |
| 1 every 1-2 years | 0 | 0 | 0 | 0 |
| During Season : 1-2 times a week | 0 | 0 | 0 | 83 |
| During Season : more than 3 times a week | 0 | 0 | 0 | 0 |
| During Season : less than 1 a week | 0 | 0 | 0 | 17 |
| Seldom, during holidays, special occasions | 0 | 0 | 0 | 0 |
| Anytime, when feels like it, etc. | 0 | 0 | 15 | 0 |
| N | 54 | 35 | 26 | 24 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 16 : PERCENTAGE DISTRIBUTION OF FREQUENCY OF MAIN RECREATION ACTIVITIES, FOR AUSTERVILLE RESPONDENTS

| FREQUENCY \ MAIN RECREATION ACTIVITIES | CINEMA % | SOCCER % | DANCING % | VISITING % |
|---|---|---|---|---|
| 7 times a week (Daily) | 0 | 0 | 0 | 0 |
| 3-6 times a week | 0 | 0 | 0 | 3 |
| 1-2 times a week (Weekly) | 16 | 0 | 13 | 48 |
| Weekends only | 0 | 0 | 0 | 0 |
| 1-3 times a month (Fortnightly, Monthly) | 59 | 0 | 54 | 39 |
| 1 every 2-6 months | 25 | 0 | 28 | 10 |
| 1 every 1-2 years | 0 | 0 | 5 | 0 |
| During Season : 1-2 times a week | 0 | 42 | 0 | 0 |
| During Season : more than 3 times a week | 0 | 0 | 0 | 0 |
| During Season : less than 1 a week | 0 | 58 | 0 | 0 |
| Seldom, during holidays, special occasions | 0 | 0 | 0 | 0 |
| Anytime, when feel like it, etc. | 0 | 0 | 0 | 0 |
| N | 44 | 43 | 39 | 32 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 17 : PERCENTAGE DISTRIBUTION OF FREQUENCY OF MAIN RECREATION ACTIVITIES, FOR SPARKS ESTATE RESPONDENTS

| FREQUENCY / MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | SOCCER % | DRIVE-IN % | DANCING % |
|---|---|---|---|---|---|
| 7 times a week (Daily) | 0 | 16 | 0 | 0 | 0 |
| 3-6 times a week | 0 | 5 | 0 | 0 | 0 |
| 1-2 times a week (Weekly) | 34 | 27 | 3 | 32 | 0 |
| Weekends only | 0 | 0 | 0 | 0 | 0 |
| 1-3 times a month (Fortnightly, Monthly) | 50 | 35 | 0 | 32 | 67 |
| 1 every 2-6 months | 14 | 13 | 0 | 18 | 33 |
| 1 every 1-2 years | 1 | 3 | 6 | 18 | 0 |
| During Season : 1-2 times a week | 0 | 0 | 0 | 0 | 0 |
| During Season : more than 3 times a week | 0 | 0 | 40 | 0 | 0 |
| During Season : less than 1 a week | 0 | 0 | 6 | 0 | 0 |
| Seldom, during holidays, special occasions | 0 | 0 | 45 | 0 | 0 |
| Anytime, when feels like it, etc. | 0 | 0 | 0 | 0 | 0 |
| N | 76 | 62 | 35 | 34 | 21 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 18 : PERCENTAGE DISTRIBUTION OF FREQUENCY OF MAIN RECREATION ACTIVITIES, FOR WESTCLIFF RESPONDENTS

| FREQUENCY \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | DRIVE-IN % | SOCCER % |
|---|---|---|---|---|
| 7 times a week (Daily) | 1 | 1 | 0 | 0 |
| 3-6 times a week | 0 | 0 | 0 | 0 |
| 1-2 times a week (Weekly) | 23 | 47 | 7 | 0 |
| Weekends only | 0 | 0 | 0 | 0 |
| 1-3 times a month (Fortnightly, Monthly) | 51 | 39 | 28 | 0 |
| 1 every 2-6 Months | 24 | 13 | 45 | 0 |
| 1 every 1-2 years | 1 | 0 | 21 | 0 |
| During Season : 1-2 times a week | 0 | 0 | 0 | 41 |
| During Season : more than 3 times a week | 0 | 0 | 0 | 4 |
| During Season : less than 1 a week | 0 | 0 | 0 | 56 |
| Seldom, during holidays, special occasions | 0 | 0 | 0 | 0 |
| Anytime, when feel like it, etc. | 0 | 0 | 0 | 0 |
| N | 75 | 70 | 29 | 27 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 19 : PERCENTAGE DISTRIBUTION OF FREQUENCY OF MAIN RECREATION ACTIVITIES, FOR RESERVOIR HILLS RESPONDENTS

| FREQUENCY \ MAIN RECREATION ACTIVITIES | VISITING % | DINING-OUT % | DRIVE-IN % | CINEMA % | TENNIS % |
|---|---|---|---|---|---|
| 7 times a week (Daily) | 6 | 2 | 0 | 0 | 0 |
| 3-6 times a week | 8 | 2 | 0 | 0 | 4 |
| 1-2 times a week (Weekly) | 58 | 4 | 17 | 3 | 58 |
| Weekends only | 0 | 0 | 0 | 0 | 19 |
| 1-3 times a month (Fortnightly, Monthly) | 23 | 41 | 31 | 41 | 15 |
| 1 every 2-6 months | 4 | 37 | 40 | 38 | 0 |
| 1 every 1-2 years | 0 | 13 | 11 | 14 | 4 |
| During Season : 1-2 times a week | 0 | 0 | 0 | 0 | 0 |
| During Season : more than 3 times a week | 0 | 0 | 0 | 0 | 0 |
| During Season : less than 1 a week | 0 | 0 | 0 | 0 | 0 |
| Seldom, during holidays, special occasions | 0 | 0 | 0 | 3 | 0 |
| Anytime, when feel like it, etc. | 0 | 0 | 0 | 0 | 0 |
| N | 77 | 46 | 35 | 29 | 26 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 20 : PERCENTAGE DISTRIBUTION OF FREQUENCY OF MAIN RECREATION ACTIVITIES, FOR SEA VIEW RESPONDENTS

| FREQUENCY \ MAIN RECREATION ACTIVITIES | DINING-OUT % | VISITING % | CINEMA % | TENNIS % | SQUASH % |
|---|---|---|---|---|---|
| 7 times a week (Daily) | 0 | 0 | 0 | 0 | 0 |
| 3-6 times a week | 6 | 3 | 0 | 8 | 19 |
| 1-2 times a week (Weekly) | 62 | 57 | 10 | 44 | 26 |
| Weekends only | 0 | 0 | 0 | 19 | 19 |
| 1-3 times a month (Fortnightly, Monthly) | 0 | 36 | 46 | 25 | 33 |
| 1 every 2-6 months | 9 | 0 | 42 | 3 | 4 |
| 1 every 1-2 years | 23 | 0 | 2 | 0 | 0 |
| During Season : 1-2 times a week | 0 | 0 | 0 | 0 | 0 |
| During Season : more than 3 times a week | 0 | 0 | 0 | 0 | 0 |
| During Season : less than 1 a week | 0 | 0 | 0 | 0 | 0 |
| Seldom, during holidays, special occasions | 0 | 0 | 0 | 0 | 0 |
| Anytime, when feel like it, etc. | 0 | 4 | 0 | 0 | 0 |
| N | 78 | 70 | 48 | 36 | 27 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 21 : PERCENTAGE DISTRIBUTION OF FREQUENCY OF MAIN RECREACTION ACTIVITIES, FOR WESTVILLE RESPONDENTS

| FREQUENCY \ MAIN RECREATION ACTIVITIES | SOCCER % | CINEMA % | CHURCH % | VISITING % |
|---|---|---|---|---|
| 7 times a week (Daily) | 0 | 0 | 0 | 29 |
| 3-6 times a week | 0 | 1 | 3 | 13 |
| 1-2 times a week (Weekly) | 6 | 80 | 84 | 42 |
| Weekends only | 0 | 0 | 0 | 0 |
| 1-3 times a month (Fortnightly, Monthly) | 0 | 19 | 13 | 13 |
| 1 every 2-6 months | 0 | 0 | 0 | 2 |
| 1 every 1-2 years | 0 | 0 | 0 | 0 |
| During Season : 1-2 times a week | 59 | 0 | 0 | 0 |
| During Season : more than 3 times a week | 1 | 0 | 0 | 0 |
| During Season : less than 1 a week | 35 | 0 | 0 | 0 |
| Seldom, during holidays, special occasions | 0 | 0 | 0 | 0 |
| Anytime, when feel like it, etc. | 0 | 0 | 0 | 0 |
| N | 109 | 90 | 67 | 45 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 22 : PERCENTAGE DISTRIBUTION OF FREQUENCY OF MAIN RECREATION ACTIVITIES, FOR KWAMASHU RESPONDENTS

# APPENDIX 3B

## LIST OF TABLES

APPENDIX 3B CONTINUED

LIST OF TABLES PAGE

| TRANSPORT MODE \ MAIN RECREATION ACTIVITIES | CINEMA % | DANCING % | VISITING % | SOCCER % |
|---|---|---|---|---|
| Private car | 41 | 71 | 58 | 67 |
| Bus | 57 | 29 | 38 | 17 |
| Train | 2 | 0 | 4 | 0 |
| Taxi | 0 | 0 | 0 | 0 |
| Walk | 0 | 0 | 0 | 17 |
| No transport - activity at home | 0 | 0 | 0 | 0 |
| Public and private transport | 0 | 0 | 0 | 0 |
| 2 forms public transport (eg, train & bus) | 0 | 0 | 0 | 0 |
| N | 54 | 35 | 26 | 24 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 23 : PERCENTAGE DISTRIBUTION OF TRANSPORT MODE TO MAIN RECREATION ACTIVITIES, FOR AUSTERVILLE RESPONDENTS

| TRANSPORT MODE \ MAIN RECREATION ACTIVITIES | CINEMA % | SOCCER % | DANCING % | VISITING % |
|---|---|---|---|---|
| Private car | 82 | 67 | 87 | 72 |
| Bus | 18 | 23 | 8 | 12 |
| Train | 0 | 0 | 0 | 0 |
| Taxi | 0 | 0 | 5 | 0 |
| Walk | 0 | 9 | 0 | 16 |
| No transport - activity at home | 0 | 0 | 0 | 0 |
| Public and private transport | 0 | 0 | 0 | 0 |
| 2 forms public transport (eg, train & bus) | 0 | 0 | 0 | 0 |
| N | 44 | 43 | 39 | 32 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 24 : PERCENTAGE DISTRIBUTION OF TRANSPORT MODE TO MAIN RECREATION ACTIVITIES, FOR SPARKS ESTATE RESPONDENTS

| TRANSPORT MODE \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | SOCCER % | DRIVE-IN % | DANCING % |
|---|---|---|---|---|---|
| Private car | 24 | 27 | 26 | 100 | 76 |
| Bus | 13 | 19 | 14 | 0 | 5 |
| Train | 3 | 0 | 3 | 0 | 0 |
| Taxi | 0 | 0 | 0 | 0 | 0 |
| Walk | 61 | 53 | 57 | 0 | 19 |
| No transport : activity at home | 0 | 0 | 0 | 0 | 0 |
| Public and private transport | 0 | 0 | 0 | 0 | 0 |
| 2 forms public transport (eg, train &bus) | 0 | 0 | 0 | 0 | 0 |
| N | 76 | 62 | 35 | 34 | 21 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 25 : PERCENTAGE DISTRIBUTION OF TRANSPORT MODE TO MAIN RECREATION ACTIVITIES, FOR WESTCLIFF RESPONDENTS

| TRANSPORT MODE \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | DRIVE-IN % | SOCCER % |
|---|---|---|---|---|
| Private car | 79 | 83 | 100 | 63 |
| Bus | 20 | 11 | 0 | 22 |
| Train | 0 | 0 | 0 | 0 |
| Taxi | 1 | 0 | 0 | 0 |
| Walk | 0 | 6 | 0 | 15 |
| No transport : activity at home | 0 | 0 | 0 | 0 |
| Public and private transport | 0 | 0 | 0 | 0 |
| 2 forms public transport (eg,train & bus) | 0 | 0 | 0 | 0 |
| N | 75 | 70 | 29 | 27 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 26 : PERCENTAGE DISTRIBUTION OF TRANSPORT MODE TO MAIN RECREATION ACTIVITIES, FOR RESERVOIR HILLS RESPONDENTS

| TRANSPORT MODE \ MAIN RECREATION ACTIVITIES | VISITING % | DINING-OUT % | DRIVE-IN % | CINEMA % | TENNIS % |
|---|---|---|---|---|---|
| Private car | 88 | 98 | 100 | 79 | 85 |
| Bus | 3 | 0 | 0 | 14 | 0 |
| Train | 0 | 2 | 0 | 3 | 0 |
| Taxi | 0 | 0 | 0 | 0 | 0 |
| Walk | 9 | 0 | 0 | 0 | 12 |
| No transport : activity at home | 0 | 0 | 0 | 0 | 0 |
| Public and private transport | 0 | 0 | 0 | 3 | 4 |
| 2 forms public transport (eg, train & bus) | 0 | 0 | 0 | 0 | 0 |
| N | 77 | 46 | 35 | 29 | 26 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 27 : PERCENTAGE DISTRIBUTION OF TRANSPORT MODE TO MAIN RECREATION ACTIVITIES, FOR SEA VIEW RESPONDENTS

| TRANSPORT MODE \ MAIN RECREATION ACTIVITIES | DINING-OUT % | VISITING % | CINEMA % | TENNIS % | SQUASH % |
|---|---|---|---|---|---|
| Private car | 100 | 100 | 100 | 83 | 93 |
| Bus | 0 | 0 | 0 | 0 | 0 |
| Train | 0 | 0 | 0 | 0 | 0 |
| Taxi | 0 | 0 | 0 | 0 | 0 |
| Walk | 0 | 0 | 0 | 6 | 7 |
| No transport : activity at home | 0 | 0 | 0 | 11 | 0 |
| Public and private transport | 0 | 0 | 0 | 0 | 0 |
| 2 forms public transport (eg, train & bus) | 0 | 0 | 0 | 0 | 0 |
| N | 78 | 70 | 48 | 36 | 27 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 28 : PERCENTAGE DISTRIBUTION OF TRANSPORT MODE TO MAIN RECREACTION ACTIVITIES, FOR WESTVILLE RESPONDENTS

| TRANSPORT MODE \ MAIN RECREATION ACTIVITIES | SOCCER % | CINEMA % | CHURCH % | VISITING % |
|---|---|---|---|---|
| Private car | 2 | 8 | 3 | 2 |
| Bus | 68 | 26 | 7 | 14 |
| Train | 2 | 50 | 3 | 9 |
| Taxi | 0 | 1 | 0 | 2 |
| Walk | 28 | 16 | 87 | 73 |
| No transport : activity at home | 0 | 0 | 0 | 0 |
| Public and private transport | 0 | 0 | 0 | 0 |
| 2 forms public transport (eg, train & bus) | 0 | 0 | 0 | 0 |
| N | 109 | 90 | 67 | 45 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 29 : PERCENTAGE DISTRIBUTION OF TRANSPORT MODE TO MAIN RECREATION ACTIVITIES, FOR KWAMASHU RESPONDENTS

| TRANSPORT PROBLEMS \ MAIN RECREATION ACTIVITIES | CINEMA % | DANCING % | VISITING % | SOCCER % |
|---|---|---|---|---|
| No problems | 18 | 31 | 50 | 62 |
| Bus service bad | 43 | 29 | 31 | 17 |
| No local bus service | 0 | 0 | 0 | 0 |
| Fares high | 9 | 0 | 4 | 0 |
| Petrol too expensive | 30 | 40 | 15 | 21 |
| Problems indicated but unspecified | 0 | 0 | 0 | 0 |
| Train service bad | 0 | 0 | 0 | 0 |
| Other: lack of transport, no direct transport | 0 | 0 | 0 | 0 |
| N | 54 | 35 | 26 | 24 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 30 : PERCENTAGE DISTRIBUTION OF TRANSPORT PROBLEMS FOR MAIN RECREATION ACTIVITIES, FOR AUSTERVILLE RESPONDENTS

| TRANSPORT PROBLEMS \ MAIN RECREATION ACTIVITIES | CINEMA % | SOCCER % | DANCING % | VISITING % |
|---|---|---|---|---|
| No problems | 91 | 93 | 92 | 100 |
| Bus service bad | 9 | 7 | 5 | 0 |
| No local bus service | 0 | 0 | 0 | 0 |
| Fares high | 0 | 0 | 3 | 0 |
| Petrol too expensive | 0 | 0 | 0 | 0 |
| Problems indicated but unspecified | 0 | 0 | 0 | 0 |
| Train service bad | 0 | 0 | 0 | 0 |
| Other : lack of transport, no direct transport | 0 | 0 | 0 | 0 |
| N | 44 | 43 | 39 | 32 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 31 : PERCENTAGE DISTRIBUTION OF TRANSPORT PROBLEMS FOR MAIN RECREATION ACTIVITIES, FOR SPARKS ESTATE RESPONDENTS

| TRANSPORT PROBLEMS \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | SOCCER % | DRIVE-IN % | DANCING % |
|---|---|---|---|---|---|
| No problems | 97 | 97 | 100 | 100 | 100 |
| Bus service bad | 1 | 2 | 0 | 0 | 0 |
| No local bus service | 0 | 0 | 0 | 0 | 0 |
| Fares high | 0 | 2 | 0 | 0 | 0 |
| Petrol too expensive | 0 | 0 | 0 | 0 | 0 |
| Problems indicated but unspecified | 0 | 0 | 0 | 0 | 0 |
| Train service bad | 1 | 0 | 0 | 0 | 0 |
| Other : lack of transport, no direct transport | 0 | 0 | 0 | 0 | 0 |
| N | 76 | 62 | 35 | 34 | 21 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 32 : PERCENTAGE DISTRIBUTION OF TRANSPORT PROBLEMS FOR MAIN RECREATION ACTIVITIES, FOR WESTCLIFF RESPONDENTS

| TRANSPORT PROBLEMS \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | DRIVE-IN % | SOCCER % |
|---|---|---|---|---|
| No problems | 91 | 84 | 100 | 89 |
| Bus service bad | 7 | 10 | 0 | 4 |
| No local bus service | 0 | 0 | 0 | 4 |
| Fares high | 0 | 0 | 0 | 4 |
| Petrol too expensive | 3 | 6 | 0 | 0 |
| Problems indicated but unspecified | 0 | 0 | 0 | 0 |
| Train service bad | 0 | 0 | 0 | 0 |
| Other : lack of transport, no direct transport | 0 | 0 | 0 | 0 |
| N | 75 | 70 | 29 | 27 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 33 : PERCENTAGE DISTRIBUTION OF TRANSPORT PROBLEMS FOR MAIN RECREATION ACTIVITIES, FOR RESERVOIR HILLS RESPONDENTS

| TRANSPORT PROBLEMS \ MAIN RECREATION ACTIVITIES | VISITING % | DINING-OUT % | DRIVE-IN % | CINEMA % | TENNIS % |
|---|---|---|---|---|---|
| No problems | 100 | 96 | 100 | 83 | 100 |
| Bus service bad | 0 | 0 | 0 | 10 | 0 |
| No local bus service | 0 | 0 | 0 | 0 | 0 |
| Fares high | 0 | 0 | 0 | 0 | 0 |
| Petrol too expensive | 0 | 4 | 0 | 7 | 0 |
| Problems indicated but unspecified | 0 | 0 | 0 | 0 | 0 |
| Train service bad | 0 | 0 | 0 | 0 | 0 |
| Other : lack of transport, no direct transport | 0 | 0 | 0 | 0 | 0 |
| N | 77 | 46 | 35 | 29 | 26 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 34 : PERCENTAGE DISTRIBUTION OF TRANSPORT PROBLEMS FOR MAIN RECREATION ACTIVITIES, FOR SEA VIEW RESPONDENTS

| TRANSPORT PROBLEMS \ MAIN RECREATION ACTIVITIES | DINING-OUT % | VISITING % | CINEMA % | TENNIS % | SQUASH % |
|---|---|---|---|---|---|
| No problems | 95 | 94 | 90 | 89 | 93 |
| Bus service bad | 0 | 0 | 2 | 0 | 0 |
| No local bus service | 5 | 6 | 6 | 11 | 7 |
| Fares high | 0 | 0 | 0 | 0 | 0 |
| Petrol too expensive | 0 | 0 | 2 | 0 | 0 |
| Problems indicated but unspecified | 0 | 0 | 0 | 0 | 0 |
| Train service bad | 0 | 0 | 0 | 0 | 0 |
| Other : lack of transport, no direct transport | 0 | 0 | 0 | 0 | 0 |
| N | 78 | 70 | 48 | 36 | 27 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 35 : PERCENTAGE DISTRIBUTION OF TRANSPORT PROBLEMS FOR MAIN RECREATION ACTIVITIES, FOR WESTVILLE RESPONDENTS

| TRANSPORT PROBLEMS \ MAIN REACTION ACTIVITIES | SOCCER % | CINEMA % | CHURCH % | VISITING % |
|---|---|---|---|---|
| No problems | 96 | 96 | 93 | 93 |
| Bus service bad | 2 | 0 | 3 | 2 |
| No local bus service | 1 | 0 | 0 | 0 |
| Fares high | 0 | 0 | 0 | 0 |
| Petrol too expensive | 0 | 0 | 0 | 0 |
| Problems indicated but unspecified | 0 | 0 | 0 | 0 |
| Train service bad | 0 | 2 | 3 | 2 |
| Other : lack of transport, no direct transport | 0 | 2 | 1 | 2 |
| N | 109 | 90 | 67 | 45 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 36 : PERCENTAGE DISTRIBUTION OF TRANSPORT PROBLEMS FOR MAIN RECREATION ACTIVITIES, FOR KWAMASHU RESPONDENTS

# APPENDIX 3C

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| RADIAL DISTANCES / MAIN RECREATION ACTIVITIES | | 0-4 km | 5-8 km | 9-12 km | 13-16 km | 17-20 km | > 20 km | N |
|---|---|---|---|---|---|---|---|---|
| CINEMA | % | 0 | 0 | 100 | 0 | 0 | 0 | 54 |
| DANCING | % | 0 | 45 | 55 | 0 | 0 | 0 | 35 |
| VISITING | % | 52 | 0 | 19 | 0 | 29 | 0 | 26 |
| SOCCER | % | 52 | 0 | 17 | 26 | 4 | 0 | 24 |

TABLE 37 : PERCENTAGE DISTRIBUTION OF RADIAL DISTANCES TRAVELLED BY AUSTERVILLE RESPONDENTS TO MAIN RECREATION ACTIVITIES

| MAIN RECREATION ACTIVITIES \ RADIAL DISTANCES | | 0-4 km | 5-8 km | 9-12 km | 13-16 km | 17-20 km | > 20 km | N |
|---|---|---|---|---|---|---|---|---|
| CINEMA | % | 18 | 77 | 0 | 5 | 0 | 0 | 44 |
| SOCCER | % | 58 | 39 | 3 | 0 | 0 | 0 | 43 |
| DANCING | % | 13 | 74 | 13 | 0 | 0 | 0 | 39 |
| VISITING | % | 65 | 6 | 25 | 3 | 0 | 0 | 32 |

TABLE 38 : PERCENTAGE DISTRIBUTION OF RADIAL DISTANCES TRAVELLED BY SPARKS ESTATE RESPONDENTS TO MAIN RECREATION ACTIVITIES

| MAIN RECREATION ACTIVITIES \ RADIAL DISTANCES | | 0-4 km | 5-8 km | 9-12 km | 13-16 km | 17-20 km | > 20 km | N |
|---|---|---|---|---|---|---|---|---|
| CINEMA | % | 82 | 0 | 0 | 18 | 0 | 0 | 76 |
| VISITING | % | 90 | 0 | 3 | 3 | 0 | 3 | 62 |
| SOCCER | % | 77 | 0 | 6 | 9 | 9 | 0 | 35 |
| DRIVE-IN | % | 0 | 0 | 100 | 0 | 0 | 0 | 34 |
| DANCING | % | 50 | 0 | 25 | 25 | 0 | 0 | 21 |

TABLE 39 : PERCENTAGE DISTRIBUTION OF RADIAL DISTANCES TRAVELLED BY WESTCLIFF RESPONDENTS TO MAIN RECREATION ACTIVITIES

| MAIN RECREATION ACTIVITIES \ RADIAL DISTANCES | | 0-4 km | 5-8 km | 9-12 km | 13-16 km | 17-20 km | > 20 km | N |
|---|---|---|---|---|---|---|---|---|
| CINEMA | % | 0 | 5 | 92 | 3 | 0 | 0 | 75 |
| VISITING | % | 37 | 17 | 4 | 34 | 7 | 0 | 70 |
| DRIVE-IN | % | 0 | 0 | 0 | 0 | 0 | 100 | 29 |
| SOCCER | % | 54 | 4 | 27 | 8 | 8 | 0 | 27 |

TABLE 40 : PERCENTAGE DISTRIBUTION OF RADIAL DISTANCES TRAVELLED BY RESERVOIR HILLS RESPONDENTS TO MAIN RECREATION ACTIVITIES

| MAIN RECREATION ACTIVITIES \ RADIAL DISTANCES | | 0-4 km | 5-8 km | 9-12 km | 13-16 km | 17-20 km | > 20 km | N |
|---|---|---|---|---|---|---|---|---|
| VISITING | % | 91 | 0 | 0 | 9 | 0 | 0 | 77 |
| DINING-OUT | % | 0 | 19 | 77 | 4 | 0 | 0 | 46 |
| DRIVE-IN | % | 74 | 17 | 9 | 0 | 0 | 0 | 35 |
| CINEMA | % | 7 | 0 | 93 | 0 | 0 | 0 | 29 |
| TENNIS | % | 85 | 8 | 8 | 0 | 0 | 0 | 26 |

TABLE 41 : PERCENTAGE DISTRIBUTION OF RADIAL DISTANCES TRAVELLED BY SEA VIEW RESPONDENTS TO MAIN RECREATION ACTIVITIES

| MAIN RECREATION ACTIVITIES \ RADIAL DISTANCES | | 0-4 km | 5-8 km | 9-12 km | 13-16 km | 17-20 km | > 20 km | N |
|---|---|---|---|---|---|---|---|---|
| DINING-OUT | % | 6 | 13 | 78 | 0 | 0 | 3 | 78 |
| VISITING | % | 71 | 16 | 3 | 10 | 0 | 0 | 70 |
| CINEMA | % | 0 | 17 | 83 | 0 | 0 | 0 | 48 |
| TENNIS | % | 72 | 28 | 0 | 0 | 0 | 0 | 36 |
| SQUASH | % | 70 | 15 | 15 | 0 | 0 | 0 | 27 |

TABLE 42 : PERCENTAGE DISTRIBUTION OF RADIAL DISTANCES TRAVELLED BY WESTVILLE RESPONDENTS TO MAIN RECREATION ACTIVITIES

| MAIN RECREATION ACTIVITIES \ RADIAL DISTANCES | | 0-4 km | 5-8 km | 9-12 km | 13-16 km | 17-20 km | > 20 km | N |
|---|---|---|---|---|---|---|---|---|
| SOCCER | % | 5 | 0 | 95 | 0 | 0 | 0 | 109 |
| CINEMA | % | 24 | 0 | 0 | 76 | 0 | 0 | 90 |
| CHURCH | % | 90 | 3 | 8 | 0 | 0 | 0 | 67 |
| VISITING | % | 80 | 0 | 7 | 0 | 0 | 13 | 45 |

TABLE 43 : PERCENTAGE DISTRIBUTION OF RADIAL DISTANCES TRAVELLED BY KWAMASHU RESPONDENTS TO MAIN RECREATION ACTIVITIES

| REASON FOR CHOOSING ACTIVITY DESTINATION AREA \ MAIN RECREATION ACTIVITIES | CINEMA % | DANCING % | VISITING % | SOCCER % |
|---|---|---|---|---|
| Only one available | 50 | 51 | 0 | 25 |
| Nearest one, closer to home | 15 | 11 | 4 | 21 |
| Convenient : live there, work there, etc. | 17 | 9 | 0 | 38 |
| Friends/relatives live there, belong to Club | 0 | 0 | 96 | 4 |
| Like the place : decent, prefer it, etc. | 4 | 17 | 0 | 0 |
| Quality of facilities good | 15 | 11 | 0 | 8 |
| Facility safe : good security, protection | 0 | 0 | 0 | 4 |
| Other | 0 | 0 | 0 | 0 |
| N | 54 | 35 | 26 | 24 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 44 : PERCENTAGE DISTRIBUTION OF REASON FOR CHOOSING ACTIVITY DESTINATION AREAS OF MAIN RECREATION ACTIVITIES, FOR AUSTERVILLE RESPONDENTS

| REASON FOR CHOOSING ACTIVITY DESTINATION AREA \ MAIN RECREATION ACTIVITIES | CINEMA % | SOCCER % | DANCING % | VISITING % |
|---|---|---|---|---|
| Only one available | 14 | 16 | 10 | 0 |
| Nearest one, closer to home | 23 | 33 | 10 | 0 |
| Convenient : live there, work there, etc. | 20 | 37 | 13 | 0 |
| Friends/relatives live there, belong to Club | 0 | 0 | 3 | 100 |
| Like the place : decent, prefer it, etc. | 7 | 0 | 28 | 0 |
| Quality of facilities good | 36 | 0 | 33 | 0 |
| Facility safe : good security, protection | 0 | 14 | 3 | 0 |
| Other | 0 | 0 | 0 | 0 |
| N | 44 | 43 | 39 | 32 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 45 : PERCENTAGE DISTRIBUTION OF REASON FOR CHOOSING ACTIVITY DESTINATION AREAS OF MAIN RECREATION ACTIVITIES, FOR SPARKS ESTATE RESPONDENTS

| REASON FOR CHOOSING ACTIVITY DESTINATION AREA \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | SOCCER % | DRIVE-IN % | DANCING % |
|---|---|---|---|---|---|
| Only one available | 0 | 0 | 3 | 79 | 0 |
| Nearest one, closer to home | 75 | 2 | 60 | 15 | 14 |
| Convenient : live there, work there, etc. | 5 | 98 | 11 | 6 | 5 |
| Friends/relatives live there, belong to Club | 0 | 0 | 11 | 0 | 24 |
| Like the place : decent, prefer it, etc. | 0 | 0 | 0 | 0 | 10 |
| Quality of facilities good | 18 | 0 | 0 | 0 | 48 |
| Facility safe : good security, protection | 1 | 0 | 11 | 0 | 0 |
| Other | 0 | 0 | 3 | 0 | 0 |
| N | 76 | 62 | 35 | 34 | 21 |
| MISSING DATA % | 0 | 0 | 0 | 0 | 0 |

TABLE 46 : PERCENTAGE DISTRIBUTION OF REASON FOR CHOOSING ACTIVITY DESTINATION AREAS OF MAIN RECREATION ACTIVITIES, FOR WESTCLIFF RESPONDENTS

| REASON FOR CHOOSING ACTIVITY DESTINATION AREA \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | DRIVE-IN % | SOCCER % |
|---|---|---|---|---|
| Only one available | 33 | 0 | 72 | 19 |
| Nearest one, closer to home | 24 | 0 | 17 | 22 |
| Convenient : live there, work there, etc. | 16 | 0 | 0 | 41 |
| Friends/relatives live there, belong to Club | 0 | 100 | 0 | 4 |
| Like the place : decent, prefer it, etc. | 4 | 0 | 10 | 0 |
| Quality of facilities good | 23 | 0 | 0 | 7 |
| Facility safe : good security, protection | 0 | 0 | 0 | 7 |
| Other | 0 | 0 | 0 | 0 |
| N | 75 | 70 | 29 | 27 |
| MISSING DATA % | 0 | 0 | 0 | 0 |

TABLE 47 : PERCENTAGE DISTRIBUTION OF REASON FOR CHOOSING ACTIVITY DESTINATION AREAS OF MAIN RECREATION ACTIVITIES, FOR RESERVOIR HILLS RESPONDENTS

| REASON FOR CHOOSING ACTIVITY DESTINATION AREA \ MAIN RECREATION ACTIVITIES | VISITING % | DINING-OUT % | DRIVE-IN % | CINEMA % | TENNIS % |
|---|---|---|---|---|---|
| Only one available | 0 | 4 | 0 | 14 | 0 |
| Nearest one, closer to home | 3 | 4 | 32 | 7 | 27 |
| Convenient : live there, work there, etc. | 3 | 65 | 59 | 76 | 50 |
| Friends/relatives live there, belong to Club | 94 | 0 | 0 | 0 | 19 |
| Like the place : decent, prefer it, etc. | 0 | 13 | 3 | 0 | 0 |
| Quality of facilities good | 0 | 13 | 6 | 0 | 0 |
| Facility safe : good security, protection | 0 | 0 | 0 | 3 | 0 |
| Other | 0 | 0 | 0 | 0 | 4 |
| N | 77 | 46 | 34 | 29 | 26 |
| MISSING DATA % | 0 | 0 | 3 | 0 | 0 |

TABLE 48 : PERCENTAGE DISTRIBUTION OF REASON FOR CHOOSING ACTIVITY DESTINATION AREA OF MAIN RECREATION ACTIVITIES, FOR SEA VIEW RESPONDENTS

| REASON FOR CHOOSING ACTIVITY DESTINATION AREA \ MAIN RECREATION ACTIVITIES | DINING-OUT % | VISITING % | CINEMA % | TENNIS % | SQUASH % |
|---|---|---|---|---|---|
| Only one available | 0 | 0 | 2 | 0 | 0 |
| Nearest one, closer to home | 6 | 0 | 4 | 22 | 19 |
| Convenient : live there, work there, etc. | 62 | 16 | 70 | 61 | 70 |
| Friends/relatives live there, belong to Club | 0 | 84 | 0 | 6 | 0 |
| Like the place : decent, prefer it, etc. | 9 | 0 | 4 | 3 | 0 |
| Quality of facilities good | 23 | 0 | 19 | 3 | 7 |
| Facility safe : good security, protection | 0 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 6 | 4 |
| N | 78 | 70 | 47 | 36 | 27 |
| MISSING DATA % | 0 | 0 | .2 | 0 | .0 |

TABLE 49 : PERCENTAGE DISTRIBUTION OF REASON FOR CHOOSING ACTIVITY DESTINATION AREA OF MAIN RECREATION ACTIVITIES, FOR WESTVILLE RESPONDENTS

| REASON FOR CHOOSING ACTIVITY DESTINATION AREA \ MAIN RECREATION ACTIVITIES | SOCCER % | CINEMA % | CHURCH % | VISITING % |
|---|---|---|---|---|
| Only one available | 1 | 0 | 16 | 0 |
| Nearest one, closer to home | 83 | 22 | 54 | 22 |
| Convenient : live there, work there, etc. | 6 | 12 | 21 | 2 |
| Friends/relatives live there, belong to Club | 6 | 0 | 0 | 76 |
| Like the place : decent, prefer it, etc. | 1 | 23 | 9 | 0 |
| Quality of facilities good | 1 | 41 | 0 | 0 |
| Facility safe : good security, protection | 0 | 1 | 0 | 0 |
| Other | 1 | 1 | 0 | 0 |
| N | 109 | 88 | 67 | 45 |
| MISSING DATA % | 0 | 2 | 0 | 0 |

TABLE 50 : PERCENTAGE DISTRIBUTION OF REASON FOR CHOOSING ACTIVITY DESTINATION AREA OF MAIN RECREATION ACTIVITIES, FOR KWAMASHU RESPONDENTS

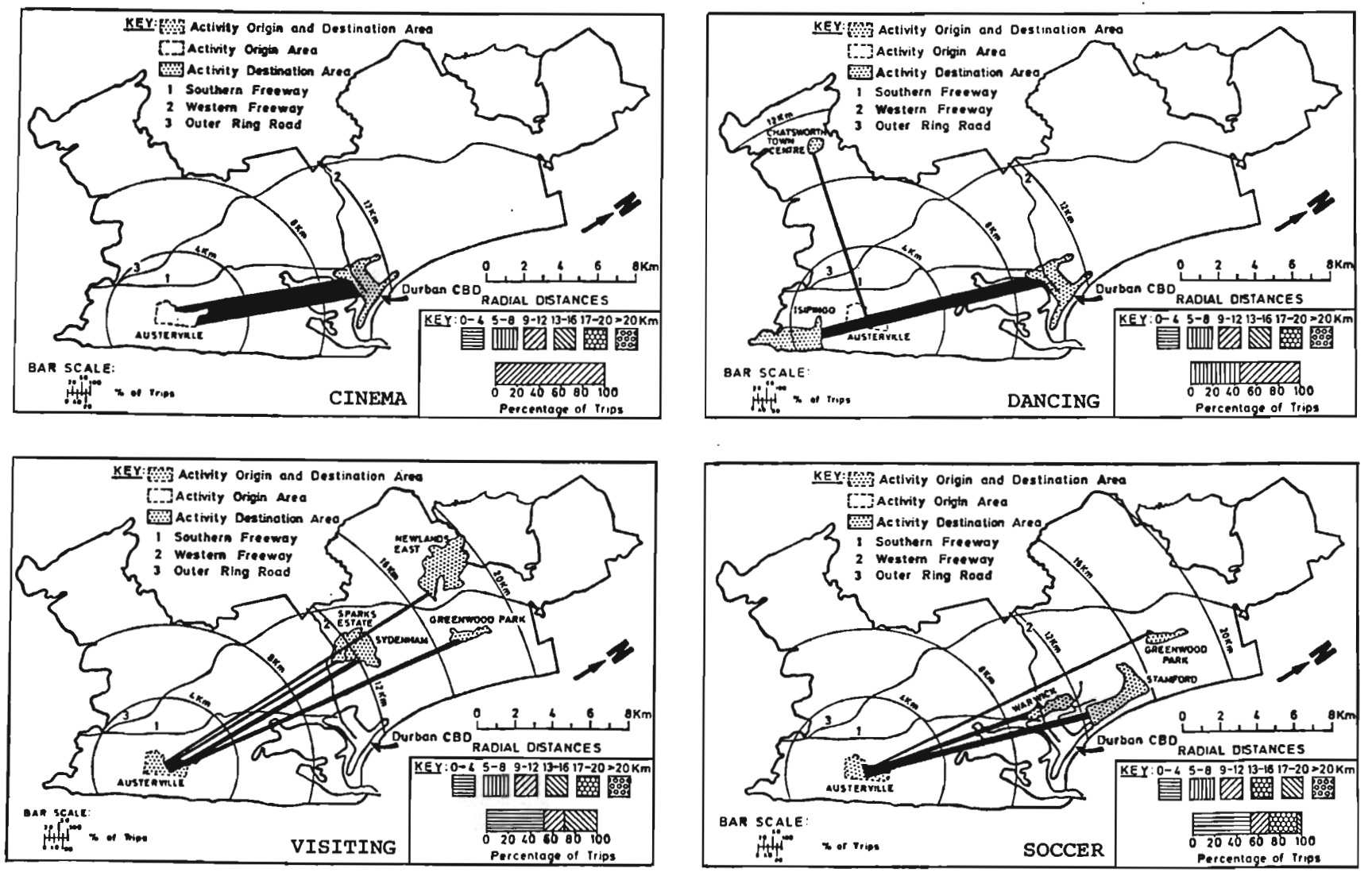


FIGURE 1 : ACTIVITY SPACE MAPS OF THE MAIN RECREATION ACTIVITIES OF AUSTERVILLE RESPONDENTS

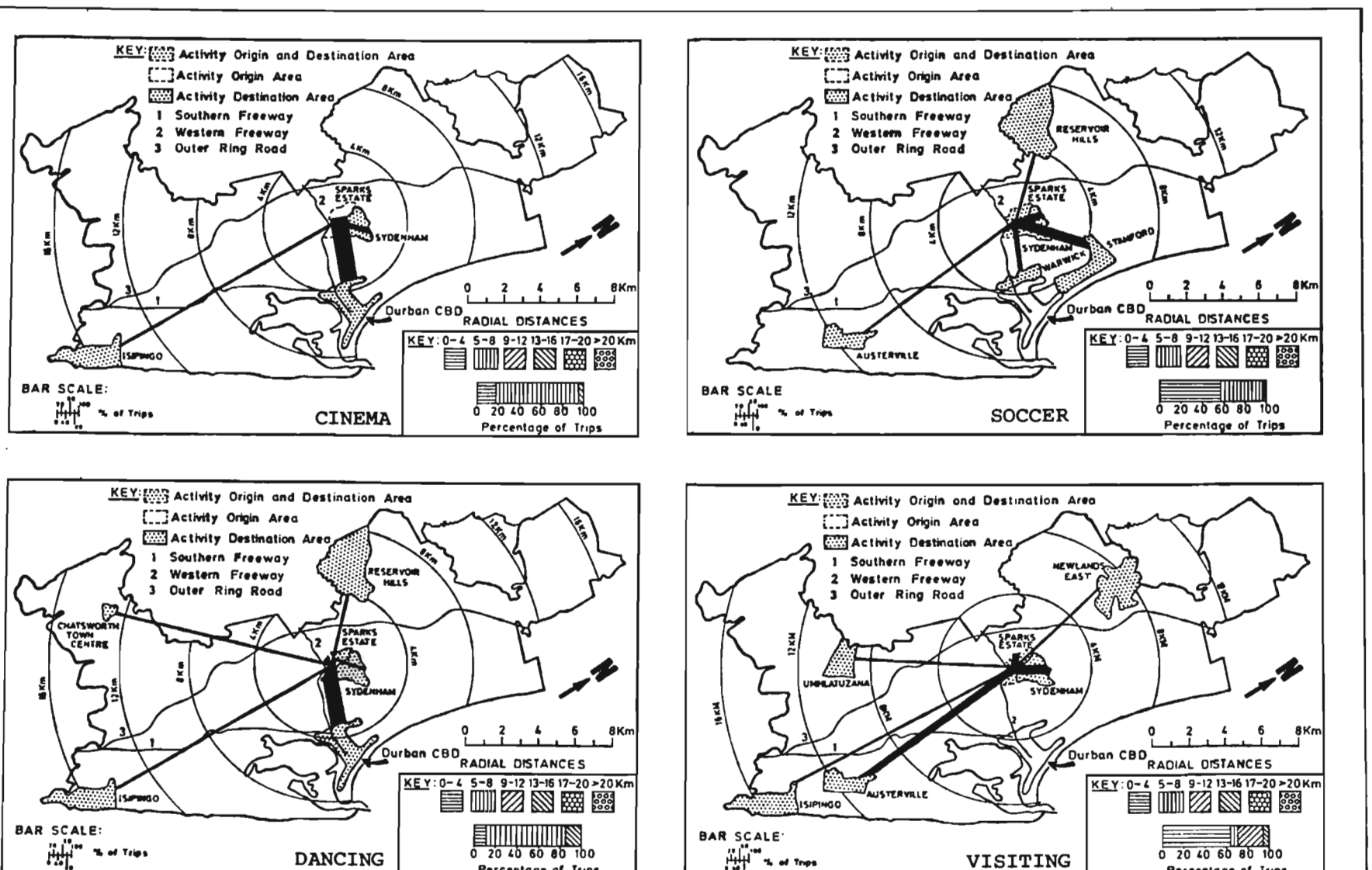


FIGURE 2 : ACTIVITY SPACE MAPS OF THE MAIN RECREATION ACTIVITIES OF SPARKS ESTATE RESPONDENTS

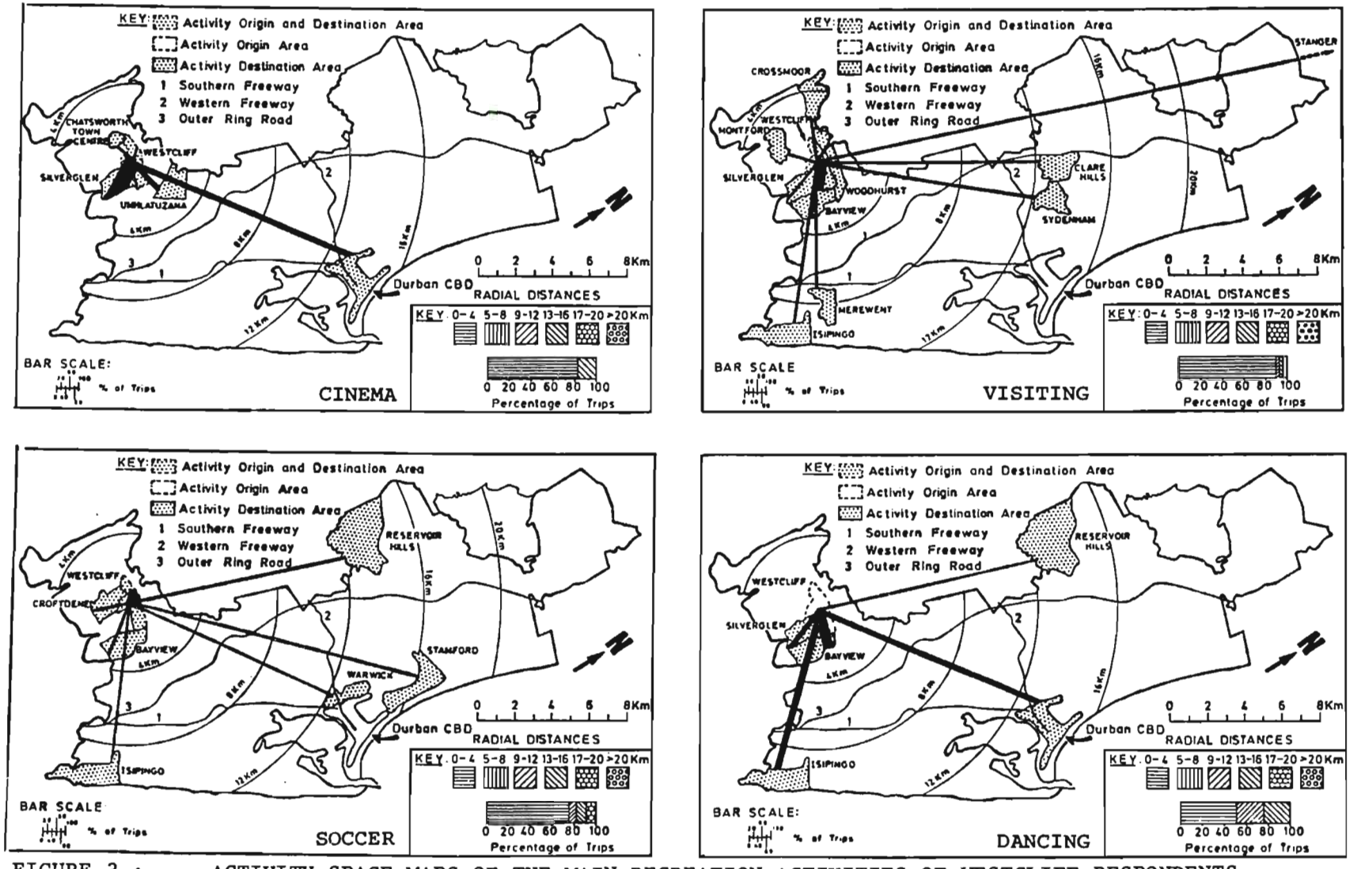


FIGURE 3 : ACTIVITY SPACE MAPS OF THE MAIN RECREATION ACTIVITIES OF WESTCLIFF RESPONDENTS

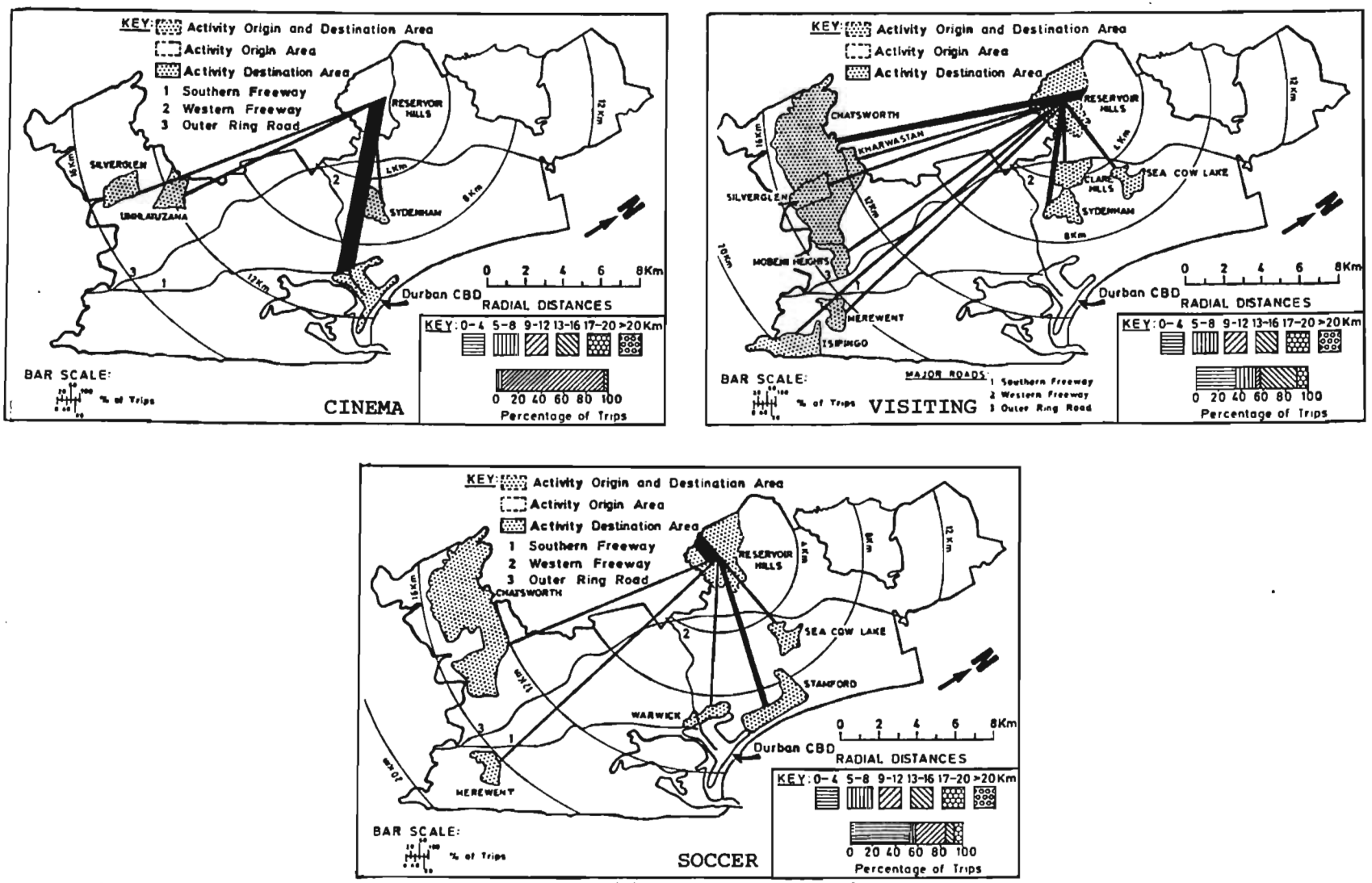


FIGURE 4 : ACTIVITY SPACE MAPS OF THE MAIN RECREATION ACTIVITIES OF RESERVOIR HILLS RESPONDENTS

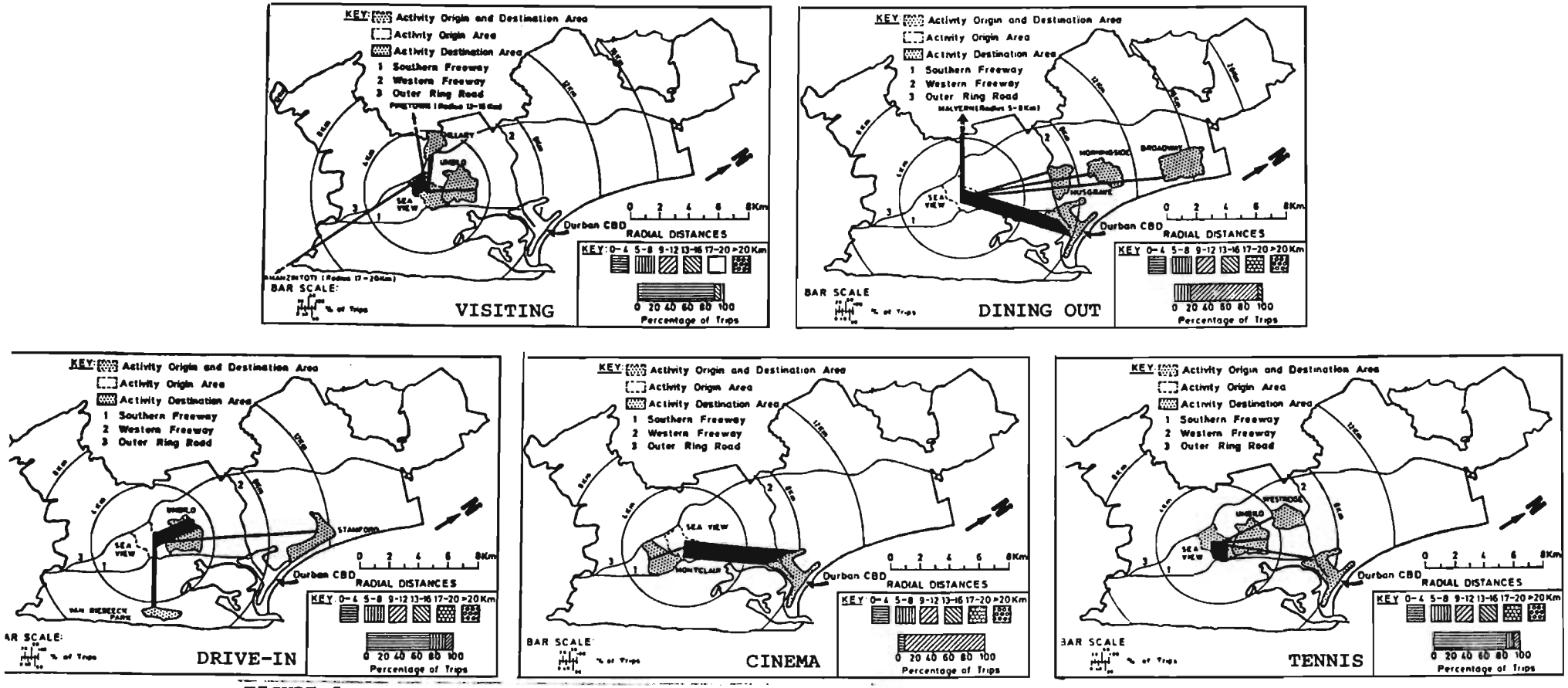


FIGURE 5 : ACTIVITY SPACE MAPS OF MAIN RECREATION ACTIVITIES OF SEA VIEW RESPONDENTS

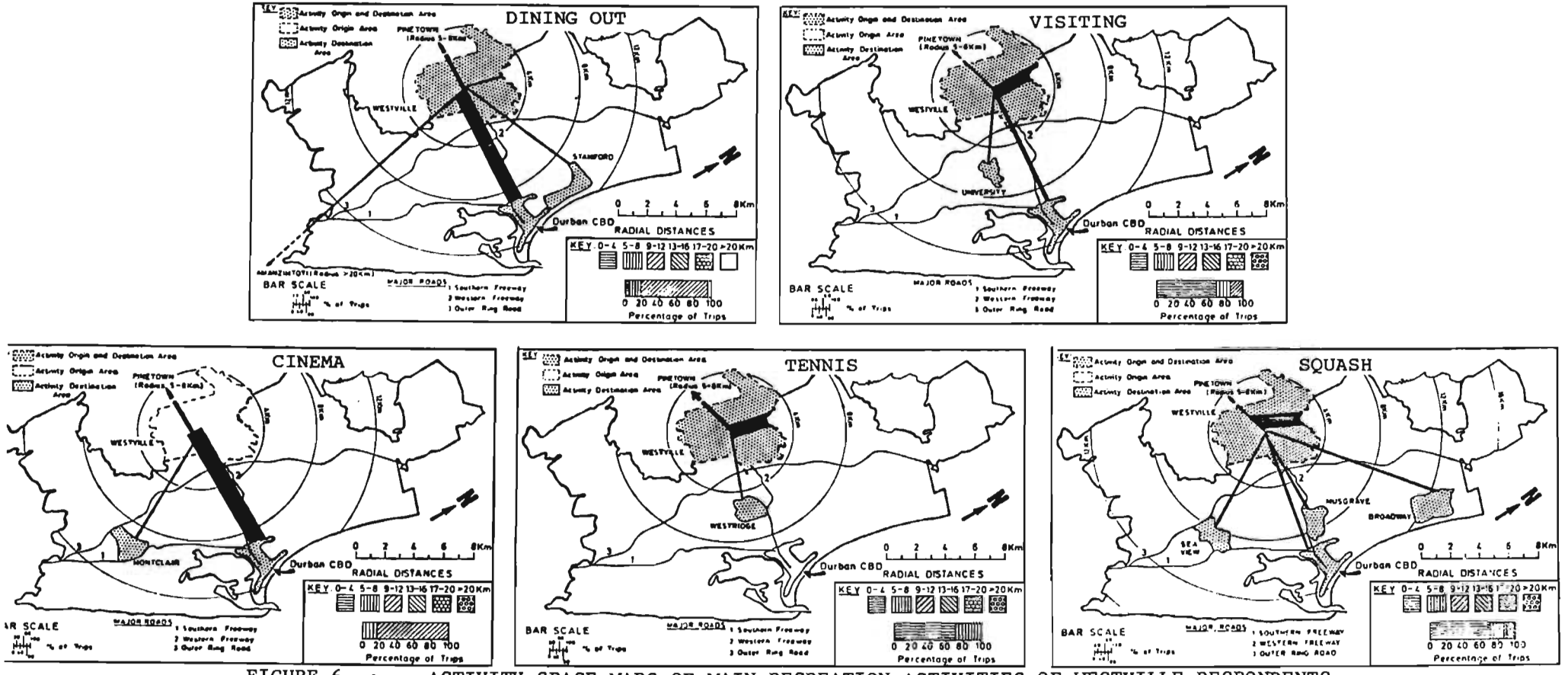


FIGURE 6 : ACTIVITY SPACE MAPS OF MAIN RECREATION ACTIVITIES OF WESTVILLE RESPONDENTS

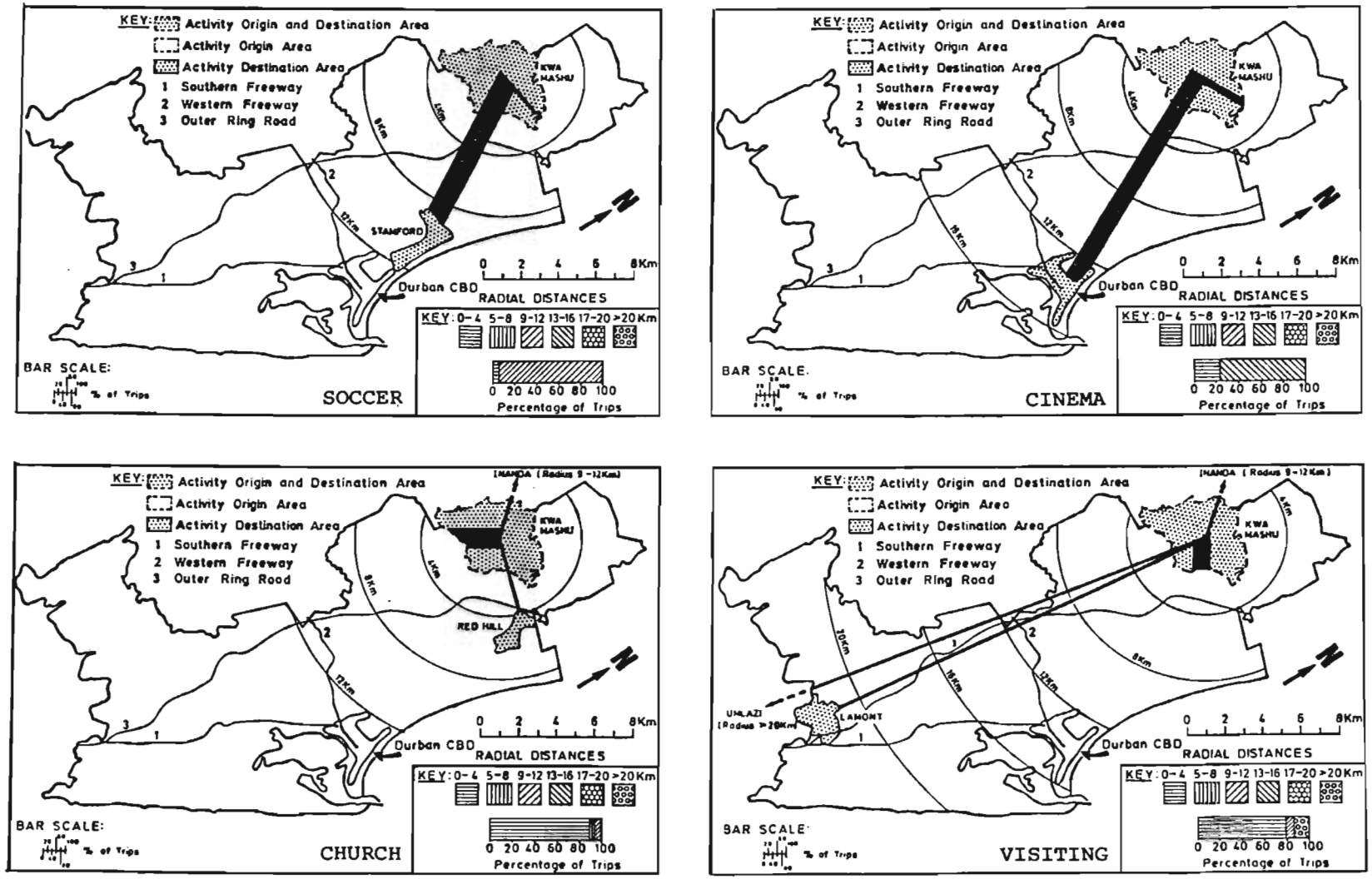


FIGURE 7 : ACTIVITY SPACE MAPS OF MAIN RECREATION ACTIVITIES OF KWAMASHU RESPONDENTS

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TABLE 51 : SCHEDULE OF PUBLIC OPEN SPACE FOR AUSTERVILLE : 1980

| SITE REFERENCES | DEVELOPED (hectares) | | | UNDEVELOPED (hectares) | | DESCRIPTION |
|---|---|---|---|---|---|---|
| | Active | Playlot | Passive | Council | Private | |
| 4. Tara/Retreat Rd | 5,6000 | 0,3000 | | | | Sports Complex |
| 5. Maria Crescent | | | | | 1,1500 | Bushlands |
| 6. Maj. Calver Cres | | | | | 1,3200 | Sloping Grasslands |
| 7. Alabama Rd | | 0,2300 | | | | Playlot/Kickabout |
| 8. Tara/Alabama Rd | | 0,5800 | | | | Playlot/Kickabout |
| 9. Paarl/Cycas Rd | | 0,5500 | | | | Playlot/Kickabout |
| 10. Tara/Amoora Rd | | 0,1500 | 1,1250 | | | Playlot/Passive |
| 11. Tara Rd | 0,2200 | | | | | Kickabout |
| 12. Croton Rd | | 0,1500 | 0,7200 | | | Playlot/Kickabout |
| 13. Rooks Rd | | | | | 2,0450 | Bushlands |
| 14. Olive/Cycas Rd | 1,9100 | 0,1500 | | | | Playlot/Sportsfield |
| 15. Olive/Duranta Rd | | 0,1500 | 0,0600 | | | Playlot/Access Strip |
| 16. Olive/Panax Place | | 0,1500 | 0,4300 | | | Playlot/Park |
| 17. Olive/Ixora Rd | | | | 0,0800 | | Corner Site |
| 18. Victor Lawler Rd | | | | 0,9200 | | Flats Erected |
| 19. Tuin Rd | | | | | 0,1100 | Grasslands |
| 20. Wolraas Rd | | | | 1,2500 | | Grasslands |
| TOTAL 19,3500 ha | 7,7300 | 2,4100 | 2,3350 | 2,2500 | 4,6250 | |

(Adapted from AN INVESTIGATION INTO THE USES AND OWNERSHIP OF LAND RESERVED FOR PUBLIC OPEN SPACE. MEREWENT DISTRICT, CITY ENGINEER'S DEPARTMENT, NOVEMBER 1980)

TABLE 52 : SCHEDULE OF PUBLIC OPEN SPACE FOR SPARKS ESTATE : 1980

| SITE REFERENCES | DEVELOPED (hectares) Active | Playlot | Passive | UNDEVELOPED (hectares) Council | Private | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1. Calder/Chancellor | | | | | 0,1072 | Steep buffer strip |
| 2. Berridale/Gove Grove | | | | 0,0614 | | Existing dwelling |
| 3. Brickfield/Guildford | | 0,2000 | | 0,3000 | 1,000 | Existing dwelling |
| 4. Baron/Guildford Ave | | | | 0,2992 | 0,4584 | Existing dwellings |
| 5. Aloe/Kildorah Ave | | | | | 0,2500 | Moderate slope/Trees |
| 6. Randles/Tills Crs | | 0,1564 | | | 0,1077 | Existing dwellings |
| 7. Brickfield/Villa | 5,1500 | | | | | Swimming pool/ Fields/Grandstand |
| 8. Randles/Aloe Grove | | 0,2597 | | 0,0650 | 0,1950 | Existing dwellings |
| 9. Aloe/Kenilworth Ave | | | | 0,0595 | | Slight slope |
| 10. Randles/Waterfall | | | | 1,0200 | 0,1700 | Existing dwelling/ D.C. depot |
| 11. Capell/Barns Rd | 2,8000 | | | | | Sports Complex |
| 12. Everton Rd | | 0,5000 | | 0,2584 | | Existing dwellings/ playlot |
| 13. Hugo/Everton Rd | | | | 0,3100 | | Sloping grasslands |
| 14. Hugo/Western Freeway | | 0,1500 | 1,5700 | | | Playlot/Kickabout |
| 15. Sparks/Rattery Crs | | 0,1500 | 0,2900 | | | Kickabout |
| 16. Cornelius/Knight Rd | | | 0,1620 | | | Kickabout |
| 17. Spearman/Shoult Ave | | 0,2368 | | | 1,0156 | Existing dwellings/ playlot |
| 18. Sparks/Marsh Lane | | 0,2150 | | | | Playlot |
| 19. Sparks/Butcher Rd | | 0,2300 | | | | Playlot |
| 20. Randles/Bazley Ave | | | | 0,6525 | 1,4175 | Existing dwellings |
| 21. Kaal/Bazley Ave | | | 0,0913 | | 0,2337 | Kickabout |
| 22. Randles/York Pl | | | | 1,4837 | 2,8458 | Existing houses/ swamp |
| 23. Church Rd, Ext | | | | 1,1300 | | Steep bushland |
| TOTAL 25,6045 ha | 7,9500 | 2,0979 | 2,1133 | 5,6424 | 7,8009 | |

(Adapted from: AN INVESTIGATION INTO THE USES AND OWNERSHIP OF LAND RESERVED FOR PUBLIC OPEN SPACE, UMGENI SOUTH DISTRICT, CITY ENGINEER'S DEPARTMENT, NOVEMBER 1980)

TABLE 53 : SCHEDULE OF PUBLIC OPEN SPACE FOR WESTCLIFF: 1980

| SITE REFERENCES | DEVELOPED (hectares) Active | Playlot | Passive | UNDEVELOPED (hectares) Council | Private | DESCRIPTION |
|---|---|---|---|---|---|---|
| 49. Higginson Highway | | | | 5,9700 | | Carpark, parts oversteep |
| 50. Roads 201/309 | | 0,1500 | | 1,4200 | | P.L.S./Overgrown/ playlot |
| 51. Road 305 | | | | 0,6900 | | Parts steep, over-grown |
| 52. Roads 305/306 | 5,3100 | 0,1500 | | | | Soccer/cricket, floodlit |
| 53. Road 309 | | | | 0,3800 | | Bus Park/drainage problems |
| 54. Road 313 | | | | 1,7800 | | P.L.S./overgrown |
| 55. Road 333/307 | 3,5700 | 0,1500 | 3,3400 | | | Soccer/cricket/parts steep |
| 56. Road 313 | | | | 2,4500 | | P.L.S./Overgrown |
| 57. Road 320 | | | | 1,6400 | | Steep |
| 58. Higginson Highway | 10,1800 | 0,3000 | | 5,7900 | | Soccer/cricket/ changerooms |
| 59. Road 326/327 | | 0,1500 | 0,8500 | 4,2000 | | P.L.S./bush and market gardening |
| 60. Road 1024 | | | | 0,5600 | | P.L.S./Level area |
| 61. Road 337 | | | | 1,7100 | | Car park/well wooded |
| 62. Road 332/337 | | | | 22,4000 | | Steep bush |
| TOTAL 73,1400 ha | 19,0600 | 0,9000 | 4,1900 | 48,9900 | | |

(Adapted from: AN INVESTIGATION INTO THE USES AND OWNERSHIP OF LAND RESERVED FOR PUBLIC OPEN SPACE, CHATSWORTH DISTRICT, CITY ENGINEER'S DEPARTMENT, NOVEMBER 1980)

TABLE 54 : SCHEDULE OF PUBLIC OPEN SPACE FOR RESERVOIR HILLS : 1980

| SITE REFERENCES | DEVELOPED (hectares) Active | Playlot | Passive | UNDEVELOPED (hectares) Council | Private | DESCRIPTION |
|---|---|---|---|---|---|---|
| 69. Mountbatten/Nola | | | | 0,7904 | | Steep valley |
| 70. Fulham/Mountbatten | | | | | 0,6800 | Steep valley |
| 71. Juba/Battersea | | 0,1000 | | 0,6276 | | Steep bushlands |
| 72. Middlemiss Crs | | 0,1993 | | | | Playlot |
| 73. Umgeni River Bank | 8,9300 | 0,2000 | | 18,2700 | 42,5800 | Level river bank/Playlot |
| 74. Abbey/Middlemiss | | | 0,0958 | | | Park |
| 75. El Wac/Battersea | | | | 0,3928 | | Valley bushland |
| 76. Curzon Close | 0,2042 | 0,1000 | | | | Kickabout/Playlot |
| 77. Shannon/Halpin Ave | 0,9095 | 0,1500 | 0,4000 | | | Sports complex |
| 78. Shannon/Pampally | | | | 0,8425 | | Sloping bushlands |
| 79. Annet Drive | | | | 0,8748 | | Bushlands |
| 80. Nugget/Pomat Rd | | 0,1000 | 0,2213 | | | Playlot and park |
| 81. Gears/Pomat Rd | | | | 0,1506 | | Sloping Bushlands |
| 82. Yale/Lydia Ave | | | | 0,0439 | | Grasslands |
| 83. Richmond/Pridley Rd | | 0,1000 | 1,3808 | | | Pridley park/Playlot |
| 84. Pridley/Benghazi Crs | | | | 9,9500 | | Valley bushlands |
| 85. Dunstan/Bologna Ave | | | | 0,7951 | | Valley bushlands |
| 86. Woolston Rd | | | | 1,2059 | | Steep market garden |
| 87. Lyttleton/Burnton Pl | | | | 0,6400 | | Sloping bushlands |
| 88. Dunston Gardens Ext | | | | | 1,7700 | Steep |
| 89. Umgudulu Rd | | | | | 1,0300 | River/Pipeline/Bridge |
| 90. Westville Rd | | 0,1800 | | 0,3600 | | Playlot/Steep bushlands |
| 91. Mountbatten Dr | | 0,1000 | 0,7000 | 1,2700 | 1,3300 | Playlot/Steep bushlands |
| 92. Batfield Rd | | 0,1412 | | | | Playlot |
| 93. McLarty/Kies Rd | | 0,1000 | 1,4177 | | | Playlot/Park |
| 94. Riddick/Nola Terrace | | | | 4,0000 | | Valley bushlands |
| 95. Stanton/Finch Terrace | | 0,1000 | 0,1334 | | | Playlot/Park |
| TOTAL 104,4990 ha | 10,0437 | 1,5705 | 4,3490 | 40,2136 | 48,3222 | |

(Adapted from: AN INVESTIGATION INTO THE USES AND OWNERSHIP OF LAND RESERVED FOR PUBLIC OPEN SPACE, UMGENI SOUTH, DISTRICT, CITY ENGINEER'S DEPARTMENT, NOVEMBER, 1980 )

TABLE 55 : SCHEDULE OF PUBLIC OPEN SPACE FOR SEA VIEW : 1980

| SITE REFERENCE | DEVELOPED (hectares) Active | Playlot | Passive | UNDEVELOPED (hectares) Council | Private | DESCRIPTION |
|---|---|---|---|---|---|---|
| 25. Off Coedmore Rd. | 2,9100 | 0,1500 | | 2,0400 | 2,3000 | Coedmore park Football club/Playlot |
| 26. Paramount Rd | | | | 0,5100 | | Bank of proposed Canal |
| 27. Titren/Hazeldene Rds. | 0,4000 | | | | | Playlot/Kickabout |
| 28. Off Folkestone Rd. | | | | 1,4000 | | Bush affected by future road |
| 29. Doncaster Rd | 4,8400 | 0,1500 | | | | Tennis and Bowling clubs affected by future road |
| 30. Prov. Road 82/Canal | | | | 1,3700 | 0,1100 | Canal bank |
| 31. Off Sarnia Rd. | | | | 0,2400 | | Near bus sheds |
| 32. Sarnia/Doncaster Rd | | | | 1,1800 | | Portion leased to driving school |
| 33. Sarnia/Edwin Swales V.C. Drive | | | | 0,2500 | | Between two major roads |
| TOTAL 17,8500 ha | 8,1500 | 0,3000 | | 6,9900 | 2,4100 | |

(Adapted from: AN INVESTIGATION INTO THE USES AND OWNERSHIP OF PUBLIC OPEN SPACE, OLD LINE SUBURBS, CITY ENGINEER'S DEPARTMENT, NOVEMBER, 1980)

TABLE 56 : SCHEDULE OF PUBLIC OPEN-SPACE FOR WESTVILLE : 1982

| | DEVELOPED (HA) | % | UNDEVELOPED (HA) | % | TOTAL (HA) | ZONAL % DISTRIBUTION |
|---|---|---|---|---|---|---|
| ZONE A | | | | | | |
| ACTIVE | 0,80 | 15,5 | - | | 0,80 | 15,5 |
| PASSIVE | - | | 4,35 | 84,5 | 4.35 | 84,5 |
| ZONAL TOTAL | 0,80 | 15,5 | 4,35 | 84,5 | 5,15 | 100,0 |
| ZONE B | | | | | | |
| ACTIVE | - | | 0,08 | 1,2 | 0,08 | 1,2 |
| PASSIVE | 2,81 | 40,6 | 4,03 | 58,2 | 6,84 | 98,8 |
| ZONAL TOTAL | 2,81 | 40,6 | 4,11 | 59,4 | 6,92 | 100,0 |
| ZONE C | | | | | | |
| ACTIVE | 3,00 | 5,7 | 0,38 | 0,7 | 3,38 | 6,4 |
| PASSIVE | 36,23 | 68,3 | 13,40 | 25,3 | 49,63 | 93,6 |
| ZONAL TOTAL | 39,23 | 74,0 | 13,78 | 26,0 | 53,01 | 100,0 |
| ZONE D | | | NO OPEN SPACE PROVISION | | | |
| ZONE E | | | | | | |
| ACTIVE | 9,5 | 18,2 | 3,00 | 5,7 | 12,50 | 24,0 |
| PASSIVE | 18,45 | 35,3 | 21,24 | 40,7 | 39,69 | 76,0 |
| ZONAL TOTAL | 27,95 | 53,5 | 24,24 | 46,5 | 52,19 | 100,0 |
| ZONE F | | | | | | |
| ACTIVE | - | | 0,08 | 12,1 | 0,08 | 12,1 |
| PASSIVE | - | | 0,58 | 87,9 | 0,58 | 87,9 |
| ZONAL TOTAL | - | | 0,66 | 100,0 | 0,66 | 100,0 |
| ZONE G | | | | | | |
| ACTIVE | 1,05 | 5,7 | 2,50 | 13,7 | 3,55 | 19,4 |
| PASSIVE | 4,38 | 24,0 | 10,36 | 56,6 | 14,74 | 80,6 |
| ZONAL TOTAL | 5,43 | 29,7 | 12,86 | 70,3 | 18,29 | 100,0 |
| ALL ZONE TOTAL | 76,22 HA | 55,95 % | 60,00 HA | 44,0 % | 136,22 HA | 100,0 % |

(SOURCE: Leggo, 1982)

| DESIRED RECREATION FACILITIES | PERCENTAGE |
|---|---|
| CINEMA | 23 |
| PARK (EQUIPPED FOR SAFE USE BY CHILDREN) | 21 |
| LIBRARY | 15 |
| DANCE HALL/DISCOTHEQUE | 13 |
| TENNIS AND SQUASH COURTS | 12 |
| SPORTSFIELDS | 11 |
| OTHER (GOLF COURSE, FUN FAIR, ATHLETICS TRACK) | 5 |
| N | 92 |
| MISSING DATA % | 8 |

TABLE 57 : PERCENTAGE DISTRIBUTION OF DESIRED RECREATION FACILITIES IN AUSTERVILLE, GIVEN BY AUSTERVILLE RESPONDENTS

| DESIRED RECREATION FACILITIES | PERCENTAGE |
|---|---|
| SPORTSFIELDS | 22 |
| PARK/PLAYGROUNDS (EQUIPPED FOR CHILDREN) | 20 |
| SQUASH COURTS | 17 |
| INDOOR SPORTS HALL | 14 |
| TENNIS COURTS | 11 |
| POOL | 10 |
| OTHER (GYMNASIUM, DISCOTHEQUE, ATHLETICS FACILITIES) | 6 |
| N | 96 |
| MISSING DATA % | 4 |

TABLE 58 : PERCENTAGE DISTRIBUTION OF DESIRED RECREATION FACILITIES IN SPARKS ESTATE, GIVEN BY SPARKS ESTATE RESPONDENTS

| DESIRED RECREATION FACILITIES | PERCENTAGE |
|---|---|
| SWIMMING POOL | 39 |
| PARK/PLAYGROUND (EQUIPPED FOR CHILDREN) | 34 |
| SOCCER FIELDS/FACILITIES | 9 |
| TENNIS COURTS | 8 |
| NETBALL COURTS | 5 |
| OTHER (GOLF COURSE, LIBRARY, CINEMA) | 5 |
| N | 93 |
| MISSING DATA % | 7 |

TABLE 59 : PERCENTAGE DISTRIBUTION OF DESIRED RECREATION FACILITIES IN WESTCLIFF, GIVEN BY WESTCLIFF RESPONDENTS

| DESIRED RECREATION FACILITIES | PERCENTAGE |
|---|---|
| SWIMMING POOL | 30 |
| CINEMA | 24 |
| TENNIS COURTS | 20 |
| PARK/PLAYGROUNDS (FOR CHILDREN) | 10 |
| SPORTS FIELDS (FOR HOCKEY AND SOCCER) | 8 |
| OTHER (SQUASH COURTS, LIBRARY, YOUTH CENTRE) | 9 |
| N | 92 |
| MISSING DATA % | 8 |

TABLE 60 : PERCENTAGE DISTRIBUTION OF DESIRED RECREATION FACILITIES IN RESERVOIR HILLS, GIVEN BY RESERVOIR HILLS RESPONDENTS

| DESIRED RECREATION FACILITIES | PERCENTAGE |
|---|---|
| PARK | 19 |
| SQUASH COURTS | 16 |
| SPORTS FIELDS | 16 |
| INDOOR SPORTS HALL (FOR BADMINTON, VOLLEYBALL, KARATE, ETC. | 15 |
| TENNIS COURTS | 12 |
| SWIMMING POOL | 9 |
| BOWLING GREENS (AND CLUB) | 6 |
| OTHER (GYM, GOLF COURSE, MOTORCROSS TRACK, CINEMA) | 6 |
| N | 93 |
| MISSING DATA % | 7 |

TABLE 61 : PERCENTAGE DISTRIBUTION OF DESIRED RECREATION FACILITIES IN SEA VIEW, GIVEN BY SEA VIEW RESPONDENTS

| DESIRED RECREATION FACILITIES | PERCENTAGE |
|---|---|
| GOLF COURSE | 22 |
| PARKS | 17 |
| SQUASH COURTS | 12 |
| TENNIS COURTS | 10 |
| CINEMA | 7 |
| TEN PIN BOWLING | 7 |
| SPORTSFIELDS | 7 |
| COMMUNITY CENTRE | 5 |
| OTHER (DRIVE-IN, ARCHERY CLUB, ICE RINK, HORSERIDING CLUB) | 12 |
| N | 58 |
| NO FACILITIES DESIRED % | 42 |

MISSING DATA = 0%

TABLE 62 : PERCENTAGE DISTRIBUTION OF DESIRED RECREATION FACILITIES IN WESTVILLE, GIVEN BY WESTVILLE RESPONDENTS

| DESIRED RECREATION FACILITIES | PERCENTAGE |
|---|---|
| SWIMMING POOL | 18 |
| PARKS | 17 |
| HOTEL/NIGHT CLUB (PLACES TO MEET AND DANCE) | 16 |
| CINEMA | 14 |
| SPORTSFIELDS | 10 |
| BAR/DRINKING HALLS | 8 |
| RECREATION HALL/CENTRE | 6 |
| TENNIS COURTS | 5 |
| OTHER (ZOO, MUSEUM, AQUARIUM, BOWLING GREENS, TRAMPOLINES) | 7 |
| N | 200 |
| MISSING DATA % | 0 |

TABLE 63 : PERCENTAGE DISTRIBUTION OF DESIRED RECREATION FACILITIES IN KWAMASHU, GIVEN BY KWAMASHU RESPONDENTS

| QUALITY RANKING \ MAIN RECREATION ACTIVITIES | CINEMA % | DANCING % | VISITING % | SOCCER % |
|---|---|---|---|---|
| EXCELLENT, VERY GOOD, GOOD | 61 | 63 | 0 | 27 |
| BAD, POOR | 18 | 27 | 0 | 73 |
| SATISFACTORY, AVERAGE | 20 | 10 | 0 | 0 |
| FRIENDS, RELATIVES, OWN HOME | 0 | 0 | 100 | 0 |
| N | 49 | 30 | 26 | 22 |
| MISSING DATA % | 9 | 14 | 0 | 8 |

TABLE 64 : PERCENTAGE DISTRIBUTION OF QUALITY RANKINGS OF FACILITIES FOR MAIN RECREATION ACTIVITIES, FOR AUSTERVILLE RESPONDENTS

| QUALITY RANKING \ MAIN RECREATION ACTIVITIES | CINEMA % | SOCCER % | DANCING % | VISITING % |
|---|---|---|---|---|
| EXCELLENT, VERY GOOD, GOOD | 100 | 42 | 74 | 0 |
| BAD, POOR | 0 | 49 | 18 | 0 |
| SATISFACTORY, AVERAGE | 0 | 9 | 8 | 0 |
| FRIENDS, RELATIVES, OWN HOME | 0 | 0 | 0 | 100 |
| N | 29 | 43 | 38 | 32 |
| MISSING DATA % | 0 | 0 | 3 | 0 |

TABLE 65 : PERCENTAGE DISTRIBUTION OF QUALITY RANKINGS OF FACILITIES FOR MAIN RECREATION ACTIVITIES, FOR SPARKS ESTATE RESPONDENTS

| QUALITY RANKING \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | SOCCER % | DRIVE-IN % | DANCING % |
|---|---|---|---|---|---|
| EXCELLENT, VERY GOOD, GOOD | 78 | 0 | 29 | 79 | 67 |
| BAD, POOR | 21 | 0 | 65 | 15 | 5 |
| SATISFACTORY, AVERAGE | 1 | 0 | 6 | 6 | 0 |
| FRIENDS, RELATIVES, OWN HOME | 0 | 100 | 0 | 0 | 29 |
| N | 76 | 62 | 34 | 34 | 21 |
| MISSING DATA % | 0 | 0 | 3 | 0 | 0 |

TABLE 66 : PERCENTAGE DISTRIBUTION OF QUALITY RANKINGS OF FACILITIES FOR MAIN RECREATION ACTIVITIES, FOR WESTCLIFF RESPONDENTS

| QUALITY RANKING \ MAIN RECREATION ACTIVITIES | CINEMA % | VISITING % | DRIVE-IN % | SOCCER % |
|---|---|---|---|---|
| EXCELLENT, VERY GOOD, GOOD | 90 | 0 | 77 | 68 |
| BAD, POOR | 4 | 0 | 15 | 20 |
| SATISFACTORY, AVERAGE | 6 | 0 | 8 | 12 |
| FRIENDS, RELATIVES, OWN HOME | 0 | 100 | 0 | 0 |
| N | 70 | 70 | 26 | 25 |
| MISSING DATA % | 7 | 0 | 10 | 7 |

TABLE 67 : PERCENTAGE DISTRIBUTION OF QUALITY RANKINGS OF FACILITIES FOR MAIN RECREATION ACTIVITIES, FOR RESERVOIR HILLS RESPONDENTS

| QUALITY RANKING \ MAIN RECREATION ACTIVITIES | VISITING % | DINING-OUT % | DRIVE-IN % | CINEMA % | TENNIS % |
|---|---|---|---|---|---|
| EXCELLENT, VERY GOOD, GOOD | 0 | 88 | 42 | 67 | 72 |
| BAD, POOR | 0 | 0 | 12 | 7 | 12 |
| SATISFACTORY, AVERAGE | 0 | 12 | 45 | 26 | 16 |
| FRIENDS, RELATIVES, OWN HOME | 100 | 0 | 0 | 0 | 0 |
| N | 77 | 43 | 33 | 27 | 25 |
| MISSING DATA % | 0 | 7 | 6 | 7 | 4 |

TABLE 68 : PERCENTAGE DISTRIBUTION OF QUALITY RANKINGS OF FACILITIES FOR MAIN RECREATION ACTIVITIES, FOR SEA VIEW RESPONDENTS

| QUALITY RANKING \ MAIN RECREATION ACTIVITIES | DINING-OUT % | VISITING % | CINEMA % | TENNIS % | SQUASH % |
|---|---|---|---|---|---|
| EXCELLENT, VERY GOOD, GOOD | 85 | 0 | 78 | 66 | 100 |
| BAD, POOR | 0 | 0 | 9 | 0 | 0 |
| SATISFACTORY, AVERAGE | 15 | 0 | 13 | 20 | 0 |
| FRIENDS, RELATIVES, OWN HOME | 0 | 100 | 0 | 14 | 0 |
| N | 73 | 70 | 46 | 35 | 26 |
| MISSING DATA % | 6 | 0 | 4 | 3 | 4 |

TABLE 69 : PERCENTAGE DISTRIBUTION OF QUALITY RANKINGS OF FACILITIES FOR MAIN RECREATION ACTIVITIES, FOR WESTVILLE RESPONDENTS

| QUALITY RANKING \ MAIN RECREATION ACTIVITIES | SOCCER % | CINEMA % | CHURCH % | VISITING % |
|---|---|---|---|---|
| EXCELLENT, VERY GOOD, GOOD | 95 | 77 | 56 | 0 |
| BAD, POOR | 5 | 23 | 0 | 0 |
| SATISFACTORY, AVERAGE | 0 | 0 | 44 | 0 |
| FRIENDS, RELATIVES, OWN HOME | 0 | 0 | 0 | 100 |
| N | 99 | 82 | 63 | 45 |
| MISSING DATA % | 9 | 9 | 6 | 0 |

TABLE 70 : PERCENTAGE DISTRIBUTION OF QUALITY RANKINGS OF FACILITIES FOR MAIN RECREATION ACTIVITIES, FOR KWAMASHU RESPONDENTS

KEY TO NUMBERS IN FIGURE 8 (AUSTERVILLE)

| 'Facility' Site Reference Number | | Description |
|---|---|---|
| 4. | Tara/Retreat Rd | Sports Complex |
| 5. | Maria Crescent | Bushlands |
| 6. | Major Calver Crescent | Sloping Grasslands |
| 7. | Alabama Rd | Playlot/Kickabout |
| 8. | Tara/Alabama Rd | Playlot with playground equipment/Kickabout |
| 9. | Paarl/Cycas Rd | Playlot with playground equipment/Kickabout |
| 10. | Tara/Amoora Rd | Playlot with playground equipment/Kickabout |
| 11. | Tara Rd | Kickabout |
| 12. | Croton Rd | Playlot with playground equipment/Kickabout |
| 13. | Rooks Rd | Bushlands |
| 14. | Olive/Cycas Rd | Playlot with playground equipment/Kickabout |
| 15. | Olive/Duranta Rd. | Playlot with playground equipment/Kickabout |
| 16. | Olive/Panax Place | Playlot with playground equipment/Kickabout |
| 17. | Olive/Ixora Rd | Corner site |
| 18. | Victor Lawler Rd. | Flats Erected |
| 19. | Tuin Rd | Grasslands |
| 20. | Wolraas Rd | Grasslands |

(Adapted from City Engineer's Department, 1980)

KEY TO NUMBERS IN FIGURE 9 (SPARKS ESTATE)

| 'Facility' Site Reference Number | Description |
|---|---|
| 1. Calder/Chancellor Ave | Steep buffer strip |
| 2. Berridale/Gove Grove | Existing dwelling |
| 3. Brickfield/Guildford Ave | Existing dwelling |
| 4. Baron/Guildford Ave | Existing dwellings |
| 5. Aloe/Kildorah Ave | Moderate slope/Trees |
| 6. Randles/Tills Crescent | Existing dwellings |
| 7. Brickfield/Villa Rd | Swimming pool/Fields/grandstand |
| 8. Randles/Aloe Grove | Existing dwellings |
| 9. Aloe/Kenilworth Ave | Slight slope |
| 10. Randles/Waterfall | Existing dwelling/D.C. depot |
| 11. Capell/Barns Rd | Sports complex, playground equipment |
| 12. Everton Rd | Existing dwellings/Playlot with playground equipment |
| 13. Hugo/Everton Rd | Sloping grasslands |
| 14. Hugo/Western Freeway | Playlot/Kickabout, with playground equipment |
| 15. Sparks/Rattery Crescent | Kickabout |
| 16. Cornelius/Knight | Kickabout |
| 17. Spearman/Shoult Ave | Existing dwellings/playlot with playground equipment |
| 18. Sparks/Marsh Lane | Playlot with playground equipment |
| 19. Sparks/Butcher Rd | Playlot with playground equipment |
| 20. Randles/Bazley Ave | Existing dwellings |
| 21. Kaal/Bazley Ave | Kickabout |
| 22. Randles/York Pl | Existing houses/swamp |
| 23. Church Rd Ext | Steep bushland |

(Adapted from City Engineer's Department, 1980)

KEY TO NUMBERS IN FIGURE 10 (WESTCLIFF)

| 'Facility' Site Reference Number | Description |
|---|---|
| 49. Higginson Highway | Carpark, parts oversteep |
| 50. Roads 201/309 | P.L.S./Overgrown/Playlot |
| 51. Road 305 | Parts steep, overgrown |
| 52. Roads 305/306 | Soccer/cricket, floodlit |
| 53. Road 309 | Bus park/drainage problems |
| 54. Road 313 | P.L.S./overgrown |
| 55. Road 333/307 | Soccer/cricket/parts steep |
| 56. Road 313 | P.L.S./Overgrown |
| 57. Road 320 | Steep |
| 58. Higginson Highway | Soccer/Cricket/changerooms |
| 59. Road 326/327 | P.L.S./bush and market gardening |
| 60. Road 1024 | P.L.S./Level area |
| 61. Road 337 | Car park/well wooded |
| 62. Road 332/337 | Steep bush |

(Adapted from City Engineer's Department, 1980)

KEY TO NUMBERS IN FIGURE 11 (RESERVOIR HILLS)

| 'Facility' Site Reference Number | Description |
|---|---|
| 69. Mountbatten/Nola | Steep valley |
| 70. Fulham/Mountbatten | Steep valley |
| 71. Juba/Battersea | Steep bushlands/Playlot with playground equipment |
| 72. Middlemiss Crs | Playlot with playground equipment |
| 73. Umgeni River bank | Level river bank/Playlot |
| 74. Abbey/Middlemiss | Park |
| 75. El Wac/Battersea | Valley bushland |
| 76. Curzon Close | Kickabout/Playlot with playground equipment. |
| 77. Shannon/Halpin Ave | Sports Complex/Playground equipment |
| 78. Shannon/Pampally | Sloping bushlands |
| 79. Annet drive | Bushlands |
| 80. Nugget/Pomat Rd | Playlot with playground equipment and park |
| 81. Geers/Pomat Rd | Sloping bushlands |
| 82. Yale/Lydia Ave | Grasslands |
| 83. Richmond/Pridley Rd | Pridley park/playlot with playground equipment |
| 84. Pridley/Benghazi Crs | Valley bushlands |
| 85. Dunstan/Bologna Ave | Valley bushlands |
| 86. Woolston Rd | Steep market garden |
| 87. Lyttleton/Burnton Pl | Sloping bushlands |
| 88. Dunston Gardens Ext | Steep land |
| 89. Umgundulu Rd | River/Pipeline/Bridge |
| 90. Westville Rd | Playlot with playground equipment/steep bushlands |
| 91. Mountbatten Drive | Playlot with playground equipment/steep bushlands |

KEY TO NUMBERS IN FIGURE 11 (RESERVOIR HILLS) CONTINUED.....

| 'Facility' Site Reference Number | Description |
|---|---|
| 92. Batfield Rd | Playlot |
| 93. McLarty/Kies Rd | Playlot with playground equipment/Park |
| 94. Riddick/Nola Terrace | Valley bushlands |
| 95. Stanton/Finch Terrace | Playlot with playground equipment |

(Adapted from City Engineer's Department, 1980)

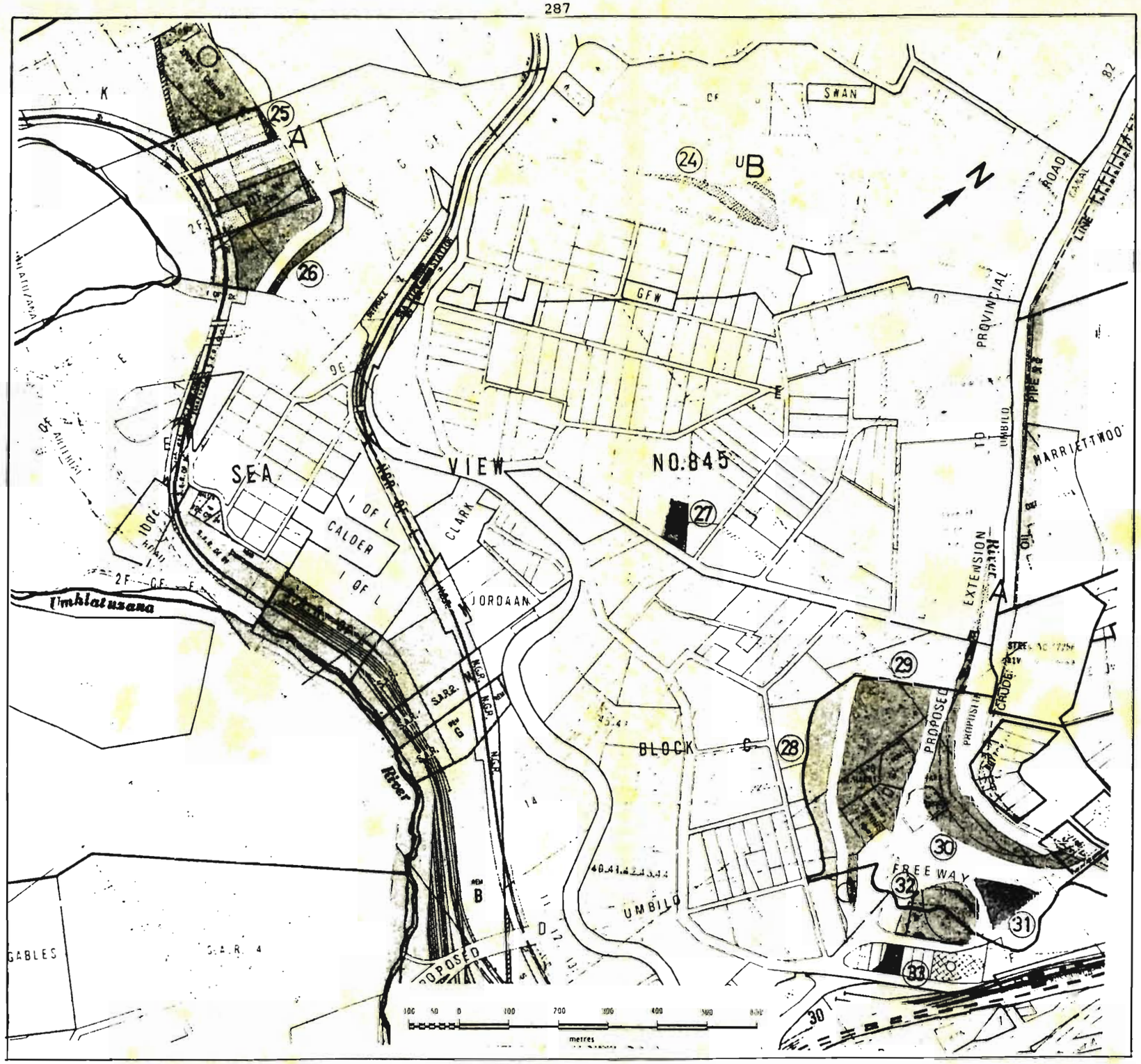


FIGURE 12 : OPEN SPACE MAP OF THE SEA VIEW AREA

SOURCE : CITY ENGINEER'S DEPARTMENT, 1979

KEY TO NUMBERS IN FIGURE 12 (SEA VIEW)

| 'Facility' Site Reference Number | Description |
|---|---|
| 25. Off Coedmore Rd | Coedmore Park Football Club/ Playlot |
| 26. Paramount Rd | Bank of proposed Canal |
| 27. Titren/Hazeldene Rd | Playlot/Kickabout |
| 28. Off Folkestone Rd | Bush affected by future road |
| 29. Doncaster Rd | Tennis and Bowling Clubs affected by future road |
| 30. Provincial Road 82/Canal | Canal bank |
| 31. Off Sarnia Rd | Near bus sheds |
| 32. Sarnia/Doncaster Rd | Grasslands Leased to Driving School |
| 33. Sarnia/Edwin Swales V.C. Drive | Portion between two major roads |

(Adapted from City Engineer's Department, 1980)

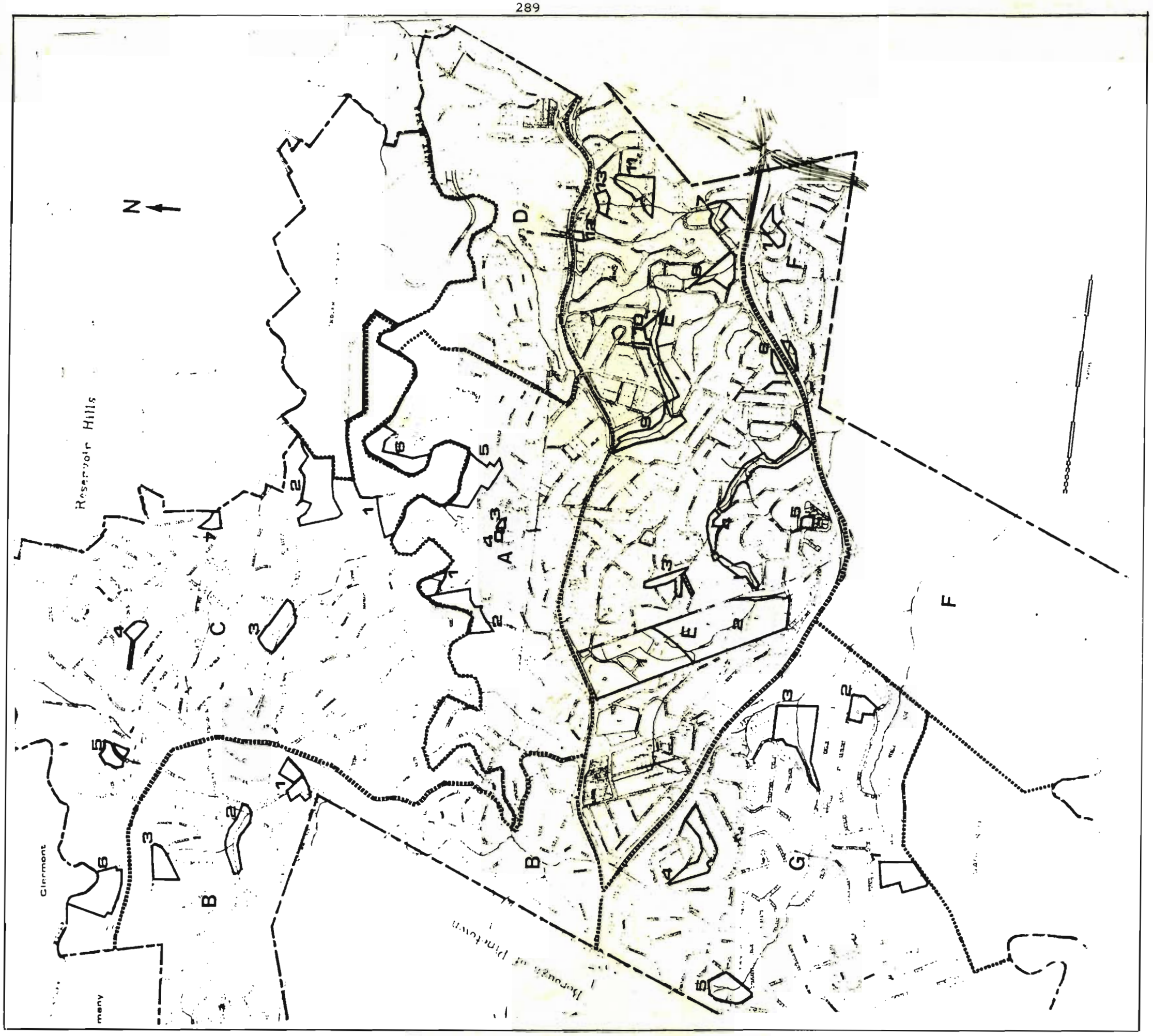


FIGURE 13 : OPEN SPACE MAP OF THE WESTVILLE AREA

KEY TO FIGURE 13 (WESTVILLE)

| Zone Reference Number | Facilities in Zone |
|---|---|
| A1 | Soccer field with clubhouse |
| 2 | Nil |
| 3 | Gymnasium |
| 4 | 2 Squash courts (in Westville Hotel) |
| 5 | Nil |
| 6 | Nil |
| B1 | Nil |
| 2 | Park with children's play equipment |
| 3 | Nil |
| C1 | Trails-Palmiet Nature Reserve |
| 2 | Nil |
| 3 | Chiltern Park Sports Club: 2 soccer fields, 2 squash courts, 1 bowling green and 5 tennis courts |
| D | Nil |
| E1 | Westville Bowling Club, Westville Tennis Club, Park with children's play equipment, Westville swimming pool |
| 2 | Westville Country Club: 8 tennis courts, 6 squash courts, 3 bowling greens, 1 hockey field, 2 soccer fields |
| 3 | Nil |
| 4 | Nil |
| 5 | Park with children's play equipment |
| 6 | Nil |
| 7 | Park with children's play equipment |
| 8 | Park with children's play equipment |
| 9 | Nil |
| 10 | Nil |
| 11 | Park with children's play equipment |
| 12 | Karate (Kudokan) hall |
| 13 | German Club |

KEY TO FIGURE 13 (WESTVILLE) CONTINUED

| Zone Reference Number | Facilities in Zone |
|---|---|
| F | Combat shooting ranges, motor cycle scrambling track |
| G1 | Soccer field with clubhouse |
| 2 | Nil |
| 3 | Nil |
| 4 | Park with children's play equipment |
| 5 | Park with children's play equipment |

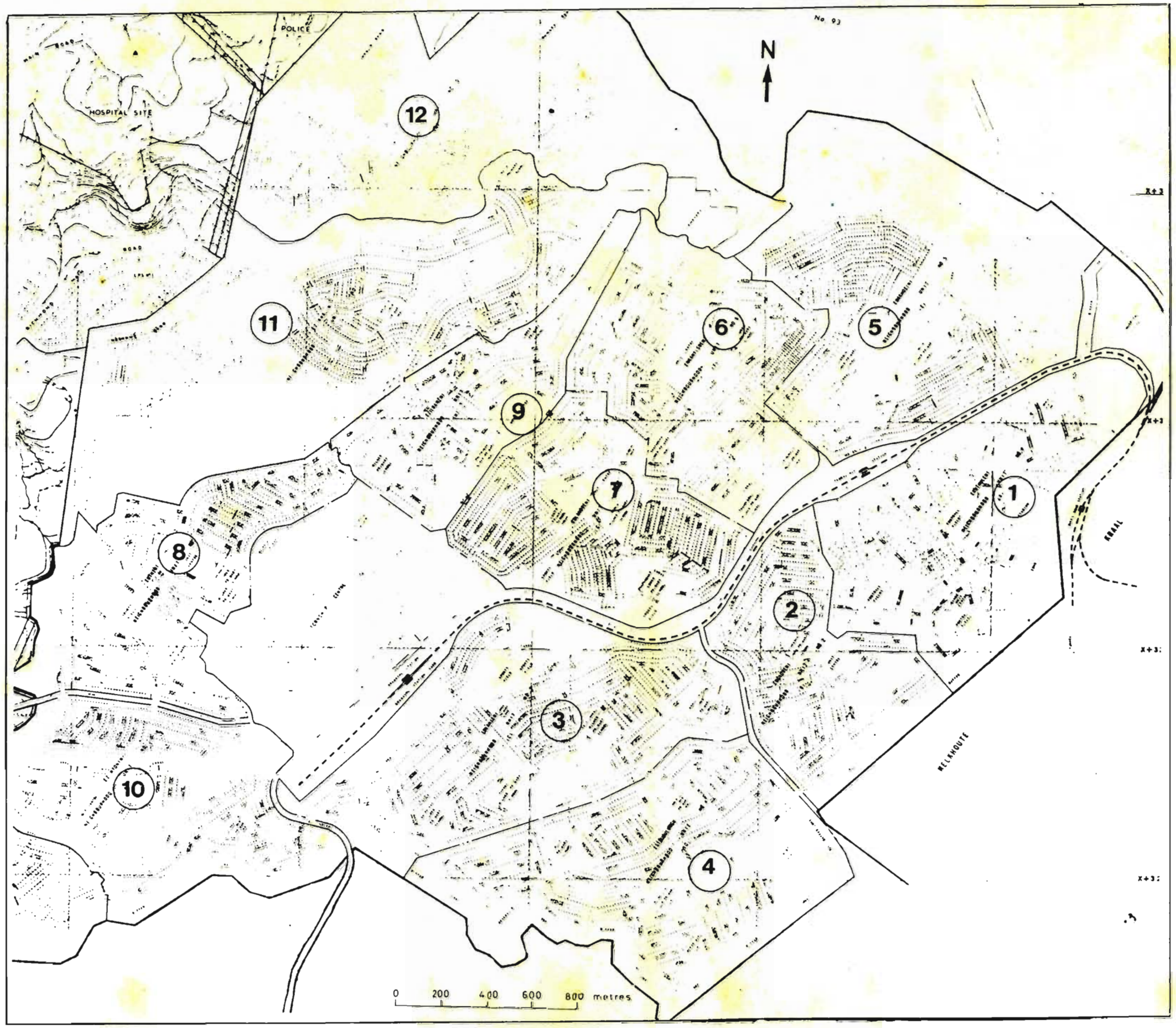


FIGURE 14 : MAP OF THE KWAMASHU AREA SHOWING UNITS

ADAPTED FROM KWAZULU DEVELOPMENT CORPORATION, 1978.

KEY TO FIGURE 14 (KWAMASHU)

| UNIT REFERENCE NUMBER | RECREATION FACILITIES IN UNIT |
|---|---|
| 1 | Beer Hall, Rotary Soccer Stadium |
| 2 | Open Ground (i.e., unfenced, equipped with goal posts and marked for soccer) |
| 3 | Beer Hall |
| 4 | Swimming pool, Open ground |
| 5 | Beer Hall, Ngoma Dance Arena, Open Ground |
| 6 | Beer Hall, Open Ground, Tennis Courts |
| 7 | Swimming pool, 2 Children's playgrounds (each equipped with a slide and see-saw) |
| 8 | 2 Open Grounds, Cinema |
| 9 | Open Ground, Princess Magogo Soccer Stadium |
| 10 | Beer Hall |
| 11 | Beer Hall |
| 12 | Open Ground |