

## Use And Experience Of Neighborhood Parks In Singapore

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The use of nearby open spaces or neighborhood parks has received significant attention from researchers in the West (e.g., Jacobs, 1969; Bangs & Mahler, 1970; Gold, 1972, 1977; Hester, 1984; Hutchison, 1994), but little is known about how people across densely populated Third World cities respond and relate to such spaces within their day-to-day living milieu. This paper explores urban residents' uses and views of neighborhood parks in a densely populated non-western city: Singapore. It reports a study of residents' experiences of nearby open spaces, that provides an understanding of how and why urban residents use open space in their everyday life.

**KEYWORDS:** *Neighborhood parks, Singapore, uses, meanings*

### Introduction

The provision of nearby open spaces or neighborhood parks for recreation in residential areas is an important part of urban planning. The use and management of neighborhood parks have attracted considerable research attention in Western scholarship on parks (e.g., Jacobs, 1969; Bangs & Mahler, 1970; Gold, 1972, 1977; Hester, 1984; Hutchison, 1994). Neighborhood parks are among the most frequently studied open spaces in the United States (Francis, 1987). Some of this research is beginning to point to the social, psychological, and therapeutic benefits of open space use (Ulrich and Addoms, 1981; Ulrich, 1984; Verderber, 1986; Kaplan & Kaplan, 1989). Kaplan and Kaplan have suggested that 'nearby nature' is important to people, the natural environment is often experienced as a preferred or aesthetic environment that plays an important role in the recovery from mental fatigue.

Yet little is known about how people across densely populated Third World cities respond to and use neighborhood parks in their day-to-day living milieu: What do they actually see when they look at the ubiquitous neighborhood parks? What are their attitudes towards neighborhood parks? What are their overall evaluations of such open spaces? How do these evaluations relate to what they feel about neighborhood spaces as embodied in the ideas or meanings they ascribe to these experiences? Some of these questions will be addressed in this paper.

Specifically, the aim of this paper is to explore the ways in which residents use and perceive neighborhood parks in a non-western city, Singapore. In particular, it reports on a study which yielded information on residents' experiences of neighborhood parks including the social and material relations pertinent to such experiences. Such an exercise is important because

it provides an understanding of how and why people relate to open space albeit in a non-western city. This is not only of practical importance in the face of growing pressure for planners to provide open space that people want, but also fundamental to theoretical discussions on the provision of open space in cities.

## Background

### *Theoretical Orientation*

The interest in the public's perceptions and experiences of neighborhood parks can be situated in the wider theoretical developments that have been taking place within recreational planning since the 1970s. An important starting point in contemporary recreational research has been the rejection of the simple activity-based models and the acceptance of the idea that the key issue in recreation is the quality of experience enjoyed by the participant (Driver & Tocher, 1970).

Reflecting a growing recognition of the importance of planning from the perspective of the public, the changing emphasis has led to a concern with modeling the recreation process in order to conceptualize the experience for the purposes of research and planning. This has spawned a great deal of research that describes the recreation experience (e.g., Driver, 1977; Tinsley & Kass, 1979; Ulrich, 1981), and more recently, that understands people's behavior in natural environments or people's relationship to these environments (e.g., Kaplan & Kaplan, 1989; Driver, Brown, & Peterson, 1991; Ulrich, Dimberg & Driver, 1991). Ulrich and his associates (Ulrich, Simons, Losito, Florito, Miles & Zelson, 1991; Ulrich, Dimberg, & Driver, 1991) have provided some empirical results to support the importance of nature and obliquely of open space in urban living. As an example, Ulrich, Simons, Losito, Florito, Miles and Zelson (1991), on the basis of design experiment involving physiological measures of subjects, have suggested that exposure to natural scenes rather than urban environments produces faster and more complete recuperation or recovery from stress.

It is not necessary to resurrect the specifics of human-environment interactions here (for a review see Ittelson, 1973; 1978). Suffice to say that such an emphasis has led to a developing analysis on the role of user perception which has been largely neglected in earlier study of recreation experience (Driver & Brown, 1975; Hamilton-Smith, 1991). Hamilton-Smith (1991) has used and developed a model that emphasizes the role of the participating individual in shaping the character and quality of the experience. By acknowledging that perception precedes action, the experienced environment offers an important point of departure for inquiry from the perspective of participants going through the experience. Such an appreciation, though new to recreational planning, has been at the core of the discipline of environmental psychology.

In this context, Ittelson, Franck and O'Hanlon (1976) have suggested that people often experience environments as an important part of them-

selves. They have defined five different modes of environmental experience to describe a number of possible individual-environment relationships:

- Experiencing the environment as an external place; that is, paying attention to the physical properties of the environment;
- Experiencing the environment as part of oneself, as an integral component of self-identity; this does not refer only to the physical qualities of the environment but to one's experiences and actions in that setting and to one's identification with other people;
- Experiencing the environment through social relationships; that is, the environment is seen primarily in terms of one's relationship with other people;
- Experiencing the environment in terms of the emotions and associations that one feels;
- Experiencing the environment as a setting within which action takes place; that is, environment is perceived as a venue for carrying out actions and achieving goals.

This conceptualization of environmental experience is adopted in the study described below. Under such a conceptualization, the park environment is treated in a global way, that is, in its physical, social, and psychological dimensions, and an attempt is made to understand the many individual-environment relationships in that situation. Emphasis is on ascertaining individuals' perceptions of the content of these relationships. Before discussing the details of the study, it is necessary to first introduce the research setting, Singapore.

#### *Research Setting: Singapore*

With a land area of 640 square kilometers and a gross density of over 4800 persons per square kilometer, Singapore is the smallest but most populous state in South-east Asia. More than 85% of its 3 million population now lives in publicly provided high-rise apartment buildings in new towns. Yet, despite the density and the focus on economic growth, there has been an increasing emphasis on land provision for open space and recreation. Over the years, the area of land allocated for open space use has more than quadrupled, rising from 709 hectares in 1967 to over 3000 hectares in 1995.

Parks of different sizes and functions are provided. Broadly speaking, three levels may be identified in the spatial order of parks. The relatively larger regional parks which serve the different regions of Singapore are complemented by the town parks each serving a new town of about 250,000 population, and the smaller neighborhood parks which are located within walking distance of residents. Even though a large proportion of the population may use neighborhood parks, little is known about their perceptions, experiences, and uses of these areas. Such study is of vital importance to the planning of parks in Singapore. There are 192 neighborhood parks in Singapore (compared with 26 regional parks and 11 town parks). The neigh-

neighborhood parks are primarily open spaces located in the vicinity of dwelling units within new towns or private housing estates. Their size may range from 1000 square meters to 2 hectares and would generally have within it a children's playground, some exercise equipment, jogging track, park benches, and open space.

## Method

### *Study Design*

A combination of quantitative and qualitative research methods was employed in a household survey questionnaire to capture various aspects of residents' uses and experiences of open spaces in Singapore. The questionnaire was wide-ranging, covering all types of parks but only data pertaining to neighborhood parks are presented in this paper. It was clear from the interviews that residents used a wide range of parks.

Data on respondents' use of neighborhood parks such as the activities undertaken, frequency of participation, transport mode, travel time, and so forth were collected through closed choice questions in the form of checklists of responses pre-tested in the pilot survey. It is an approach that is widely used in many park studies (e.g., Roberts, 1985; Parks and Recreation Department, 1989; Marriott, et al., 1991) and may therefore offer data for comparative analysis. Additional questions about respondents' evaluation and degree of liking for the park were expressed in terms of rating scale using a quantitative approach similar to earlier studies of landscape preference (e.g., Daniel & Boster, 1976; Schroeder, 1987).

Open-ended questions were also used to obtain more information about respondents' feelings and experiences of their favorite neighborhood parks including the features that they particularly enjoyed or disliked and their personal associations, thoughts, and memories with the places visited. These questions provided a more qualitative experiential or humanistic approach that seeks to understand the meaning of human-environment interactions from the viewpoint of the experiencer (Zube et al., 1982; Porteous, 1982). Although the inclusion of open-ended questions does not constitute qualitative research design, they are nevertheless a common form of questions used in qualitative research (Australian Health Ethics Committee, 1993).

### *Respondents*

Respondents were interviewed within their homes. A total of 516 interviews were completed. This represented a response rate of 64.5%, which compares favorably with an average response rate of 50.7% for interviews of similar length with 130 items of information (Yu & Cooper, 1983). Only respondents aged over 16 were included in the sample. According to the 1990 Singapore Population Census, some 80% of the population is over age 16. The sample was drawn from both public as well as private housing areas with the aim of capturing a cross-section of Singapore society. Households

within each area were randomly selected and a representative of the household was interviewed by the author and her team of assistant interviewers. About equal number of men (53.9%) and women (46.1%) were interviewed.

#### *Data Collection, Preparation and Analysis*

The interviews were largely conducted in English, taking an average of 50 minutes to complete, though those held in local languages (that is, Malay, Mandarin and Chinese dialects) generally took longer. Singapore is a multi-racial society, comprising mainly ethnic Chinese (77.7%), Malays (14.1%), and Indians (7.1%). However, given its colonial heritage, English is commonly spoken. The interviews were not tape recorded, rather interviewers wrote down the answers as the respondents spoke. Considerable pretesting of the questionnaire by the interviewers served as training though the potential exists for subjectivity and errors of transcription. Interviews conducted in local languages were translated into English. Particular care had to be taken in ensuring consistency in translation of Chinese and Malay responses to English. Together with the responses in English, they were coded, content analyzed, and statistically analyzed with the help of the Statistical Package for the Social Sciences (SPSS-X).

Answers to open-ended questions were content analyzed in that each description was broken down into words and short phrases. These words and phrases in turn were sorted into categories that expressed similar concepts or themes. Phrases were not broken up if doing so changed the meaning of the phrase. As much as possible, the categories that emerged would reflect all relevant aspects of the various descriptions and retain the exact words or part of the wording used in the statements themselves.

Although the open space literature did suggest some of the categories, most of the categories were developed inductively, based upon seemingly natural groupings found in the data. The inductive approach, as Abrahamson (1983) has suggested, involves the researcher 'immersing' in these descriptions in order to identify the dimensions or themes that seem meaningful to the respondents who are the producers of each description. Emphasis is on exhaustiveness and mutual exclusivity to account for variation of description content.

To check the clarity and reliability of the coding scheme, the author and one other person did the coding independently of each other. Differences in coding were resolved by group deliberation. Intercoder agreement averaged over 80%. The result is a detailed, written coding guide and in it, each category is defined with examples taken from the sample. The discussion of the results in the following pages includes extracts of the respondents' descriptions. These are presented in the form of words as spoken by the respondents. Consequently, the language may at times seem odd to a native English-speaking reader as it contains local idioms and expressions common and characteristic of the English spoken in Singapore.

### Result: The Use of Neighborhood Parks

The household survey showed that neighborhood parks were the most commonly visited parks in the hierarchy of parks. Approximately 50% of respondents ( $n = 268$ ) reported using neighborhood parks, often on a regular basis. Among the residents who did not visit the neighborhood parks, a large proportion (60%) had no time to go as they were either busy with work or housework. The remaining residents either found the neighborhood parks too far away and inconvenient to get to or preferred to go elsewhere because the neighborhood parks did not provide the facilities and space they seek. About a third of these residents went to the larger town parks, preferring the space and range of facilities.

However, among the neighborhood park users, more than 80% reported visits at regular frequencies of more than once a month. As many as 60% of users had been to neighborhood parks at least once weekly which for some probably means virtually every day (Table 1). In contrast, only 22% of visits to the more distant and larger regional parks were at monthly or greater frequencies. These results echo findings from Western studies; local open spaces experience more frequent use than more distant parks (Jacobs, 1961; Harrison, 1983). Although not explicitly concerned with open spaces, Jacobs (1961) in her study of the life of American cities went so far as to suggest that neighborhood outdoor places are an integral part of local residents' everyday lives.

The convenient location of neighborhood parks to home would account for the high frequency of use. Over 85% of visits to neighborhood parks were made on foot, taking less than 10 minutes. As respondents talked about their visits to neighborhood parks, it became apparent that there is a common feeling that the walk to the park itself is an integral part of the park visit and experience. The walk to and from the open space is viewed by many respondents as important in that it affords them opportunities for escape, contemplation and restoration. Here is what one respondent says about his visit to the neighborhood park: "It is the nearest park to my house. However, the walk to the park is quite therapeutic by itself."

TABLE 1  
*Frequency Of Visits To Neighborhood Parks*

Frequency of visits	Number of cases	Percentage
once weekly or more	165	61.6
once monthly or more	54	20.1
once yearly or more	34	12.6
less than once a year	10	3.7
others (e.g. once only, many years ago)	5	1.9

Total response = 268

Although there is relatively little difference between men and women in the frequency with which they visited neighborhood parks, the older respondents (those aged 30 and over) of both sexes seem to visit neighborhood parks more often than younger people (those aged below 30). These age variations may be explained by the group composition of the park users (Table 2). Over 89% of neighborhood park users are families with children whose purpose for visiting the neighborhood parks includes taking a stroll, jogging, socializing, and bringing their children to the playground.

The results offer insights into the many different ways in which the residents use neighborhood parks. A majority of the neighborhood park users (83%) reported a plurality of activities in the park. Respondents talked about the use of these small nearby open spaces, 'right in front of my block', as extensions of indoor living spaces. They socialize outdoors, 'get to know some of the neighborhood; enjoy conversation with them'. They sit while taking care of their children, they exercise their dogs and themselves, 'to satisfy personal need for an area to walk about', they 'feed children their dinner' as well as use the park as a quiet place to sit and have a private conversation with loved ones or to escape for a while from the stresses of urban life.

While a third of neighborhood park users had neutral feelings towards their neighborhood parks, over 57% of neighborhood park users liked the neighborhood parks and considered these places as important to them. The reasons reveal diverse feelings and emotions. The neighborhood parks are at once a space that gives an impression of calm, harmony, and peace, and another that pulsates with life and activity in an intense atmosphere. These characteristics and the added physical attribute of convenience, 'nearby location', seem to pronounce the neighborhood parks apart from other parks

TABLE 2  
*Group Composition Of Neighborhood Park Users*

Household type	Number of cases	Percentage
single / young couple with no children	27	10.1
nuclear family with children under 10 years	95	35.4
nuclear family with children 10 & over years	106	39.6
extended family with children under 10 years	30	11.2
extended family with children 10 & over years	8	3.0
elderly couple / person living on own	1	0.4
single parents	1	0.4

Total response = 268

and draw them to hold a place in people's lives. As one respondent put it: "...feels good knowing that there's always this place that you can go for a jog or just to relax. A place of natural setting somewhere nearby..."

Over 83% of neighborhood park users perceived their neighborhood parks as a place to relax. This raises an important question—if not to chance, then to what is this relative favoring/specialness of neighborhood parks attributable? More appropriately, with what aspects of affective reactions/experiences does it interweave? The clues may be found in the associations between variables in respondents' evaluation of parks. Table 3 displays the results of a factor analysis performed on respondents' evaluation of their favorite/liked parks. It utilizes varimax rotation, with a minimum eigenvalue set at 1.0, that yielded four factors or underlying variables, accounting for some 58% of the variance in the original data.

Several broad observations may be drawn from this analysis. First, some underlying attitudes or perspectives to people's affective reactions and assessments of parks may be discerned. For example, the first factor strongly picks up evaluating variables such as 'interesting-boring', 'like-dislike', 'relaxed-tense', 'clean-dirty', 'pleasant-unpleasant' which indicate how individuals generally perceive and appraise the park environment, that is, how good or bad they think these environments are. Such affective appraisal is an important part of the individual's relationship to that environment because the affective quality (e.g., boring, pleasant, etc.) of the environment is the primary factor in determining the moods and memories associated with a place.

The second observation is that many assessments of parks are multi-dimensional; the environment of the park, its liveliness, the degree of activity in the place, and the physical attributes of the setting are variously evaluated. The second factor, being marked by attitudes or reactions principally related to the levels of crowdedness and use indicates value placed on the enjoyment of the actual physical setting. It includes enjoyment of the tranquillity and opportunities for activities. In comparison with the second factor, the third factor indicates values associated with the physical attributes of convenience and accessibility, and to a lesser extent, safety. The fourth factor highlights the appreciation of 'nature' and 'naturalness' in open space evaluation. These factors provide an interesting insight into some of the dimensions underlying people's enjoyment and evaluation of neighborhood parks.

Although the statistical analysis may reveal the meanings that residents attach to open space, it does not disclose how these arise nor the distinction in the symbolic as opposed to the purely functional meanings of open space. For that we need to turn to the narrative accounts that residents might give, to uncover through ordinary language, what Cosgrove (1986, p.3) argued, 'the meanings that human groups attach to areas and places and the ways in which these are expressed geographically'. Meaning, as Lotman (1988, p.37) explains, arises from the interaction of languages and the ambiguity-laden richness of their conveying voices:



*TABLE 3*  
*Varimax Rotated Factor Matrix For Respondents' Adjectival Ratings Of Parks*

Adjectival Scales	Factors				Community
	Evaluation	Variety	Convenience	Naturalness	
interest-boring	0.77	-0.17	0.01	0.11	0.64
relaxed-tense	0.66	0.22	0.05	0.18	0.52
pleasant-unpleasant	0.65	0.26	0.25	-0.01	0.55
like-dislike	0.64	-0.08	0.11	0.18	0.46
clean-dirty	0.61	0.26	0.32	-0.12	0.56
safe-dangerous	0.49	0.03	0.48	-0.12	0.48
uncrowded-crowded	0.10	0.77	0.01	-0.09	0.61
quiet-noisy	0.27	0.71	-0.02	0.12	0.59
active-passive	0.30	-0.65	0.04	-0.23	0.56
convenient-inconvenient	0.07	-0.06	0.83	0.07	0.70
accessible-inaccessible	0.18	0.01	0.80	0.10	0.68
wooded-not wooded	0.04	-0.03	0.08	0.84	0.72
natural-artificial	0.29	0.33	0.03	0.57	0.51
eigenvalue	3.5	1.8	1.2	1.1	
variance (per cent)	27.1	13.8	8.9	8.4	58.2

Total response = 513

Their interaction in the closed world of a text becomes an active cultural factor as a working semiotic system. A text of this type is always richer than any particular language and cannot be put together automatically from it. A text is a semiotic space in which languages interact, interfere, and organize themselves hierarchically.

It is to this interplay between languages—the links between perceived images and imputed meanings constructed in ordinary language—that we now turn to further explore the kinds of experiences people have of the neighborhood parks and of the meanings these contacts assume. In the analysis, three particular themes emerge as important in people's use and experience of neighborhood parks. These three themes are: convenience of neighborhood parks, the desire for contact with nature, and the search for variety.

### *Convenience of Neighborhood Parks*

The convenient location of neighborhood parks was repeatedly emphasized by respondents in their verbal descriptions as well as evaluative ratings of neighborhood parks. A large proportion of neighborhood park users (87%) rated these parks as convenient as they are close to home. The importance of nearby open space in the urban pattern has been discussed by Alexander et al. (1977), 'People need green open places to go to; when they are close they use them.' (p.305). Proximity, from this perspective, is a valued quality in the open space experience that 'pull' or attract respondents to the open space. It was a major factor in respondents' descriptions of their reasons for visiting neighborhood parks. As one respondent summed it up, "...simple, convenience as it is very near to my house..."

Let us now turn to some of the respondents' comments on how and why they cherish the 'convenience' of neighborhood parks. Though the reasons given are many and diverse, there are certain trends that can help in sorting out the multiplicity of meanings that convenience evoke among people. Some of these trends are characteristic of younger people as opposed to older ones, others are more prevalent among males than females. Yet they also cut across these larger categories to produce clusters of meanings that are characteristic of people in general. Here is what one male respondent says about why he chose to go to the neighborhood park: "A very convenient and congenial place to exercise and train for my reservist physical fitness test..."

The theme of neighborhood parks as convenient places for their day-to-day exercise and recreation is common among male respondents especially those with reservist responsibilities. (Singapore has a national service system requiring all male citizens on reaching the age of 18, unless otherwise exempted, to serve two and a half years full-time in the armed forces. Thereafter, part-time reservist training continues as an obligation until the age of 45.) This group of respondents is particularly appreciative of the built elements—the paths, exercise facilities, seats, shelters—in the parks (and

critical when the elements detract from their enjoyment) in their descriptions of what they like and dislike about neighborhood parks. These elements are often remembered with vivid details.

Among the female respondents, especially mothers with young children, the reasons for visiting neighborhood parks are very different. They see such areas as offering opportunities for the child to explore and learn about nature, run and play safely without fear of traffic, and socialize with other children. As one mother with young children said, "Since this park is very near to my house, it is very convenient for me to take my children there to play."

They often discussed their use of parks in terms of the pleasures parks gave their children. One typical example came from a woman now in her 40s who spoke of her own park experience in terms of her memories of her son's play:

...used to bring the children (my son and his cousins) to this park to play in the sand-pit, on the swings, see-saw and slide. The boy could kick football and could play badminton with other children in the place.

She as well as other mothers in the sample see parks as a 'safety valve' where children can run freely, burn off energy which gives them a 'break' or an escape from the burdens of being cooped up with young children for a while. One mother with young children captured this feeling when she commented, "It helps you to relax. While the children play you can sit or exercise and keep fit. This helps to kill two birds with one stone."

This point was developed by other mothers in the sample. Another respondent, for example, shared her children's enjoyment of the neighborhood park and described her feelings of relaxation after a recent visit to the neighborhood park, "It [neighborhood park] helps you to relax...feels natural life and open space in the area as opposed to the block—inside the home—concrete. Freedom and relief when cycling with children in the area."

These views offer considerable support for the importance of neighborhood parks, particularly for children in high-rise living. Mothers from public housing especially spoke at great length about the need for their children to have a variety of safe but challenging open spaces nearby. They often described the parks in terms of the range of play facilities available for their children. For them, the convenient location of their neighborhood park is valued because it embodies a 'non-materialistic' set of experiences that contrasts strongly with what they see as the passive and insular experiences of modern day children who are thought to do little else but watch television. Within the frame of current research on children's play (e.g., Hart, 1979; Cooper-Marcus & Sarkissian, 1986; Moore, 1990), the results suggest the importance of providing such open space and making it accessible on an everyday basis so that children can be in the playground one minute and at home the next.

For many of the residents, the neighborhood park also provides a convenient place for social contact and interaction. They use neighborhood parks as a stimulus for social activity: to be with friends, to 'people-watch', and to do something that a family can do together. These places offer opportunities for teenagers to meet and play, isolated mothers to meet others, the elderly to sit and watch the world go by, the housewives, grandmothers, extended families, or a few friends to gather and drink tea together or married couples to get away from their extended families for a while. As a married respondent living in a 4-room public housing flat (typically, such accommodation comprises 3 bedrooms, a living-dining room, kitchen, and toilet/bathroom) with his extended family, three children, and live-in domestic help elaborated, "...the park is a good place for communication between you and your spouse."

Or as one elderly resident says about why he visited the nearby park: "This park is mainly used for Jurong and nearby housing estate residents, so I can use this opportunity to meet my old friends while having an exercise there." Another agreed:

The park [neighborhood] is very useful for RC [Residents' Committee] and residents to organize activities such as Lantern festival, New Year parties and BBQ party. During Lantern festival, the RC decorates beautiful and several sizes of lanterns at the Park. The procession begins about 8 p.m. and walk around the Park. It would be a very beautiful evening.

The meaning of neighborhood parks for these respondents revolves about the active experiences they can have by interacting with their fellow residents, friends, and mates. The accent is on social opportunities and relationships. Such opportunities are regarded as particularly important among the younger respondents whose members spoke repeatedly of how much they enjoyed the gatherings with peers and friends in the nearby neighborhood parks. Examination of respondents' companionship on last park visit further reveals that the majority of respondents under 30 years, 73%, has visited parks with friends. This may provide further support for the 'personal community' hypothesis of Burch (1964, 1969) and others (e.g., Field & O'Leary, 1973; Field, Burdge, & Burch, 1975) who suggested that recreation behavior is seldom an isolated individual behavior.

To take stock of the discussions thus far, one distinct point can be made. The value of neighborhood parks in the urban fabric lies in its convenient location, that is, proximity to home. Because of their convenience, neighborhood parks offer opportunities for regular contact and use, alone or with friends, or with family. These opportunities far from being extraordinary include the everyday activities of rest and relaxation, play and adventure, contact with others or opportunities to be alone, to escape from everyday routine, and opportunities for a variety of leisure interests and activities.

#### *The Desire For Contact With Nature*

Besides the convenience, respondents are also attracted to neighborhood parks for the sheer appreciation and enjoyment of nature. The natural

elements of trees and flowers were particularly appreciated and the word 'parks' were often used interchangeably with natural environment. The maintenance of a natural appearance of the park, the degree of naturalness, is highly valued and emphasized. It can be seen in respondents' feelings against what some described as the "willy-nilly chopping [of a tree]...and replacing it with instant 'decoration' trees or worse, some concrete artifact."

Respondents described and recollected both pleasant and unpleasant experiences which stem from their contact with the natural environment in parks. The majority of neighborhood park users (93%) expressed distinct impressions of pleasurable experiences in neighborhood parks. They liked to be in a natural setting to look at plants and animals, enjoy the quiet atmosphere, and look at the pleasant scenery, and be part of a place 'where people can touch the earth and relax' as some respondents described it. Such a common and widely-shared interest is equivalent to suggesting that neighborhood parks are valued for creating settings for closer interaction and enjoyment of nature. Such a view is of significance as it hints at a symbolic dimension, that of nature in open space.

It is difficult to do more than just hint at the spontaneous enjoyment of nature that permeates the descriptions. These include enjoying the openness, feeling the sun, the wind, being able to walk, jog, or just sit down and enjoy the greenery. As one male respondent described his experience of a nearby neighborhood park:

...open area with footpaths, green grass and trees...birds flying across the sky...it's an area to relax and take a stroll...Soothing atmosphere...Little noise...Children can walk or run around...Introduce children to mother nature...Get to know them [the family] better.

For another, it is the "sound of insects humming and birds singing. The closeness of oneself with nature that cannot be felt elsewhere." Though the level of involvement differs, respondents from all ages and walks of life variously described the many pleasures experienced from being outside in the park and in contact with the natural world. They talked of observing the buds and flowers, noticing the birds in the sky, and they did so in the context of their day-to-day lives rather than as special excursions by committed naturalists. Sometimes, these pleasures were remembered from childhood or from visits to particular open spaces in the neighborhood, including those settings that least appeal to people. As one respondent unreservedly acknowledged,

I don't seem to have much feeling for this park (neighborhood park) because to me I prefer a park to have lots of flowers and plenty of shades. However, when I don't feel very good, walking through the park, especially in the evening will give me peace. As it is rather quiet, it is a good place to sit and gather your thoughts.

Another respondent agrees with him,

When I am in this Park, I feel very relaxing and fresh, especially when you are surrounded with beautiful flowers, ponds, green and nice landscape, and birds flying across you.

A common theme running through many of these descriptions is the feeling of relaxation that natural elements seem to give. Respondents often talked about the park as a place to think, 'to calm down', to forget their worries, and to regain sanity and serenity. The following quote from a female respondent in her 20's is quite typical,

Whenever I have problems, I just go there to sit and think about it. It helps to calm one's feelings, to really sit down and analyze my problems. I never leave the park without solutions to the problems.

The reported effect for her as well as other respondents seems to be a perceived feeling of being in a sanctuary, separated from the normal reality of everyday concerns. As another example, in elaborating on her experience of her neighborhood park, one teenager said,

It's big, spacious...many benches for park-users and is brightly lit at night, creating an air of ambiance. It was a great place for us teenagers to play sports...it is a wonderful place to get away and be alone for a while because of its spaciousness and tranquillity.

The park experience as revealed by these and other descriptions from respondents seems immediate and at times profound; it gives a sense that the place is uniquely and privately one's own because one's experience of it is distinctively personal. In a sense, it is Tuan's (1974) *Topophilia*, an encounter with a place that is personal and profoundly important.

The prominence of peace and serenity in respondents' descriptions is very interesting in view of the physiological research by Ulrich and his colleagues (Ulrich, 1981; Ulrich & Simons, 1986; Ulrich, Simons, Losito, Florito, Miles, & Zelson, 1991). Their research has shown that natural environments, particularly those with water and vegetation, induce relaxed and less stressful states in observers compared with urban scenes with no vegetation. This ability of water and vegetation to function as 'natural tranquilizers' may be one of the most important benefits of providing parks in cities where stress is an all too often acknowledged aspect of day-to-day living. In consequence, it would seem that apart from their functions as settings for particular activities and facilitators of social action, the natural environment in neighborhood parks may play an important role in people's search for relaxation. The implication is that neighborhood park settings are directly experienced in a number of different ways.

### *The Search for Variety*

Although some respondents may go specifically to the neighborhood park to 'calm one's feelings', more often it seems the experience is multifaceted, serving not one but several purposes and bringing forth not one but several emotions and feelings. There is a sense of variety as well as fluidity in many of the experiences. Take, for example, the activities of walking and exercise, these often do not occur in isolation but also involve other scarcely reported uses such as noticing the natural surroundings, enjoying the peace

and quiet, obtaining sensations of openness and space, and feeling relaxed which come through in many of the respondents' descriptions. As one respondent commented,

I do not know why I come to this park...perhaps it's because it's near to my house. I pass it every day on way to work and my feet take me naturally into the area. I enjoy walking through the area rather than on the road to the MRT [mass rapid transit] station, I like to see the grass and greenery, sometimes you may even hear some birds singing. That was quite a feeling. But they need to provide more shade and flowering shrubs. It's too hot to sit for long...the evenings are nicer, especially when there's wind.

What is significant it seems is the quality of the total experience gained during the period of park visit, and the potential of variety of opportunities in the park. Consequently, when a neighborhood park precludes some or all of these opportunities, people express frustrations and in some cases may even stop using the park. Although respondents frequently mentioned that they liked everything about their neighborhood parks and that "it is good for kids," a number were critical of the poverty of experiences offered in some neighborhood parks. In particular, they stated their concern over the institutionalized landscapes of these parks. As one respondent commented,

It is good to have parks nearby, they are good for children to run around and play in...But although there is a neighborhood park just downstairs, to tell you the truth, I don't like to go there because there's nothing there...

Dissatisfaction was raised with regard to the lack of attraction and lack of facilities, including poor quality and unchallenging play equipment, and artificiality and uniformity of the park environment. The barrenness of the local parks does not invite creative play and the lack of facilities fails to provide opportunities for a diversity of social and recreational uses. The monotonous, sterile, 'boring' physical and natural environments of their neighborhood parks remain a source of frustration to some respondents. They wanted to see more facilities in their local parks and had suggested the addition of greenery and landscaping, especially more flowering shrubs, better lighting, and more challenging play equipment. The latter is related largely to those residents with young children.

Among this group in particular, another often mentioned reason for not using certain neighborhood park is its 'lack of security/safety'. The majority of these comments are made in relation to personal safety which engendered strong feelings of unease among several respondents. For respondents with young children, these feelings are extended to include concerns for the safety of their young children as when the location and design of the open space were perceived as threatening the children with injury or other sudden emergencies such as when the open space or its play equipment is located too close to a main road. Several parents were also critical of the lack of opportunities for children to engage in adventure play on the doorstep where they could keep a watchful eye on them. Although residents in general liked the convenience of living near to neighborhood parks and

having a place on their doorstep for play, to relax and see friends and neighbors, it is worth noting that they also disliked the noise and loss of privacy when these are located too close to their blocks.

The complaints made by respondents about their neighborhood parks do not in any way deny the importance of nearby open space. Despite some negative feelings towards neighborhood parks, many still continue to visit these places. Personal needs and circumstances (such as constraints on money, mobility, time, and the special demands made by young children) would increase respondents' dependency on local parks. The challenge to planners seems to be to provide parks that are conveniently located and at the same time responsive to a fundamental need: the desire for a variety of environmental features and recreation facilities in order to provide the range of opportunities and pleasurable experiences that people want.

### Conclusions

The findings of this study offer several insights into the functional values associated with neighborhood parks. One important finding is the multivalent environment of neighborhood parks. The respondents consistently spoke of the neighborhood parks as a convenient place for exercise, play, recreation, socialization, and nature contact. They see neighborhood parks as 'gateways to a better world' where children can explore, learn and play together in safety, and adults can come to escape for a while from the stresses of urban life or to share their experiences and socialize with other people. This is not just scientific value or mere educational value, but symbolic value. Viewed in this way, it is inappropriate to only judge the value of a park in physical terms: the sum total of size or facilities do not provide any indication of the social and symbolic meanings associated with it.

Taken together, the social and symbolic meanings provide the essence of neighborhood parks, giving them life and vibrancy. More importantly, they also tell us what characterizes neighborhood parks from the users' point of view. As we come to better understand the components that create positive values in parks, we will be in a better position to maximize these values to urban residents. For example, convenience has emerged in this study as positively related to use in that the most frequently visited open spaces are not the larger distant places but the small nearby parks. This finding confirms results from studies of U.S. and U.K. cities: in terms of overall use, neighborhood open spaces experience greater use than more distant ones (Jacobs, 1961; Harrison, 1983). This implies support for policies that foster easily accessible open space in the urban fabric. It is important that such open spaces are accessible on an everyday basis so that children can be in the playground one minute and at home the next, and quiet conversation can be enjoyed in the midst of dense living. This point is especially relevant in the context of Singapore as over 85% of the country's population now reside in high-rise, high-density public housing.



Although limited to only one metropolis in the Third World, the present study amply demonstrates that urban residents are conscious of and responsive to the natural surroundings in parks. Though committed urbanites, Singapore residents have not been 'desensitized' to the pleasures of the natural world. They are interested in and value their contact with the natural world which is enjoyed by all in the context of people's daily lives. Collectively, the various forms of involvement with nature provide sensory enjoyment and relaxation. This finding lends support to results from other park user studies, both in Singapore (e.g., Parks and Recreation Department, 1989) and other Western industrial countries (e.g., Roberts, 1985; Marriott et al., 1991) which have consistently shown the desire to relax as one reason why people visit parks.

What becomes evident from respondents' experiences is that they value natural settings for the diverse opportunities they provide—to walk, to see, to think, to play. The multiplicity of experiences in neighborhood parks points to the positive role of diversity in the visual and recreational environments of these local parks. In other words, a successful neighborhood park would be one that promote a variety of circumstances for human action and interaction. By providing a convenient setting for a broad variety of leisure and recreational activities, neighborhood parks can serve the needs and interests of all kinds of people and many subgroups of the population—young and old, groups and individuals, male and female. This wide appeal makes neighborhood parks an asset to the local community—in a social and behavioral sense as well as a physical sense. It further underscores the importance of parks in the city, an issue that can no longer be ignored by planners and policy makers.

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