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Nature and nurture, danger and delight: Urban women's experiences of the natural world

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Citation

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ABSTRACT *In this paper, we address a research lacuna in the area of human experience of, and interaction with, nature. We focus on women in an urbanized setting, exploring their actual and desired experiences of the natural world, using Singapore as a case study. Our intention is to contribute to both the evolving theoretical and empirical discussions on this subject. Based on data collected from focus group discussions and household questionnaires, we conclude that women's relationships with nature in Singapore are underscored by a strong inclination towards nurturing: teaching, tending and caring, in a way that is not as apparent in men's relationships with nature. Women's relationships with nature may also be conceptualized in terms of 'danger' and 'delight', a fine balance between ambivalent experiences of fear and enjoyment. In comparing results based on the Singapore context with those in Britain, sources of enjoyment appear to be similar, but the different social situations have resulted in different sources of fear. We conclude by putting forward some recommendations for planning and designing green areas that may enhance women's use and enjoyment of nature areas.*

KEY WORDS: women, nature, Singapore, planning and policy

Introduction

While research on the meanings and values that people invest in nature exists, only a small fraction of this literature delves into the relationship between women specifically and nature. In this paper, our intention is to address this lacuna by focusing on women in a highly urbanized setting and exploring their actual and desired experiences of the natural world, using Singapore as our case study. Our intention is to contribute to both the evolving theoretical and empirical discussions on this subject, developing conceptual categories that explicate women's relationships with nature and putting forward planning recommendations for the specific case study context.

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Research Context

The select body of work that focuses on women and nature deals essentially with two themes: ecofeminism and women's fears of, and safety in, nature. The term *ecofeminisme*, Warren (1990) tells us, was first introduced by Françoise d'Eaubonne in 1974 to draw attention to women's potential to bring about an ecological revolution. The term has been used in a variety of ways since then though there is a basic similarity among all ecofeminisms in the identification of the twin domination of women and nature (Dankelman & Davidson, 1989). These dual dominations, as summarized by Hallen (1993), are closely connected and mutually reinforcing (see also Merchant, 1990; Nesmith & Radcliffe, 1993). Indeed, Warren (1990, p. 126) argues that these connections are theoretical, historical, experiential and symbolic. Some of this is borne out in the arguments that other scholars have put forward. For example, McMahon (1997) argues that in theoretical terms, ecofeminist analysis identifies the abstract individual of neoclassical economics as a privileged male individual whose apparent 'autonomy' is predicated on the oppression of women, marginal people and nature. Others extend this further: Warren (1990) suggests that ecofeminists see some of the most important connections between the domination of women and the domination of nature as conceptual ones, rooted in questions about how we conceptualize such mainstay philosophical notions as reason and rationality, ethics and what it is to be human. This is elaborated by Plumwood (1993) who provides an ecofeminist critique of reason from Plato to the present and illustrates how the Western conception of reason lies at the root of the social and ecological crises that face humankind today. Plato's philosophy embodies the marriage of reason and domination, which reflects a masculine identity, indeed, a 'master identity', which excludes and dominates the feminine, the slave, the animal and the natural. As Plumwood (1993, p. 84) puts it,

> Primal nature (chaos) is conceived as initially fallen and disordered; *logos* undertakes to do for this disorderly other that he finds in nature the same task that he undertakes for slaves, free-living animals, female forces and other 'disorderly' elements; *logos* orders and rules the world of nature, conceived as chaotic and disorderly, in a relation of domination conceived as the imposition of a rational order.

Green (1994), however, argues that the connections between the subordination of women and nature are practical rather than conceptual and this emphasis on the practical and experiential is borne out in various examples. Warren (1990), for example, shows how environmental exploitation and degradation are feminist issues because they are linked to women's oppression: deforestation and monocultural reforestation for commercial purposes in India led to the loss of indigenous forests and multiple species of trees, thus badly affecting the provision of food, fuel, fodder, medicine and dye, and the making of household utensils, which in turn affected rural Indian women's ability to maintain a subsistence household. Similarly, Dankelman and Davidson (1989) also illustrate how the construction of dams has resulted in poverty for women and degradation of the environment. In turn, Dobscha (1993) illustrates this practical relationship between women and the environment by suggesting that women, as primary caretakers of families, are placed on the front line of the environmental crisis because of their responsibility for the family's consumption.

Inasmuch as the relationship between the subordination of women and nature is traced to philosophical and theoretical bases, it is as often traced to capitalism. Mies and Shiva (1993), for example, argue that the capitalist world system with its emphasis on 'catching-up development' suggests that urbanites, in particular white male urbanites in industrial countries, have reached a peak of development which others (women, people of colour, Third World inhabitants) can and should strive to achieve. This view has encouraged various movements, for example, the working-class movement, national liberation movements and the women's movement. However, this view ignores the fact that the earth and its resources cannot support such 'equality'. It is therefore important that the colonized (countries, women, peasants) recognize that development cannot be based on the experiences of the colonizer. They argue that there exists a close connection between liberating women and liberating nature and that women have the power to create an ecological revolution through sustaining bioregional self-sufficiency, biological and cultural diversity, co-operation between the sexes and social equality. The ultimate ecological crisis, in their view is, therefore, the colonization of regenerative sources of life renewal, from seeds to women's bodies. The only way to become ecologically sound and to defeat the patriarchal system which cripples both women and nature is to overcome the need to dominate, control and colonize. As Gaard (1997) argues, ecofeminism is concerned with the preservation and expansion of nature because nature is an Other to the Self of Western culture, and ecofeminism is concerned with the liberation of all subordinated Others. In this, they join with other ecofeminists who argue that

> if we are to become ecologically sane, we need to overcome our need to dominate. Ecofeminism suggests that ecological wholesomeness is linked in a profound way to the absence of a need to dominate and this, in turn, is linked to reawakening the (so-called) 'feminine' or receptive and nurturing aspects of ourselves. (Hallen, 1993, p. 8)

Hallen (1993), however, cautions that such ideas may unwittingly re-inforce traditional stereotypes of women as natural caregivers. She is at pains to point out that ecofeminism

> does not wish to fall prey to a form of biological determinism. Women are not better nurturers by virtue of their essential nature.... Women might be conditioned to be the carers but that does not necessarily make them good at caring. But historically, women's labour has been more involved with nurturing than men's and women can claim the past without being chained to it. So it is the accumulated experience of women as carers that is so important for us to draw upon if we are to live in better harmony with the earth. (Hallen, 1993, p. 9)

While ecofeminists debate the *similarities* between women and nature, others have explored their *relationship*, focusing in particular on women's fears of, and safety in, nature. Burgess (1993) provides a useful review of the literature, drawing on research on both sides of the Atlantic. Of research in Britain, she comments that it is only in the last few years that safety issues in urban green spaces have appeared on the agenda, in part reflecting the increased number of women in the landscape/environmental management professions (see, for example, Cooper Marcus & Francis, 1990; Walker, 1993). Burgess (1993)

also cites an unpublished report by Lee *et al.* (1991) whose major study on attitudes towards, and preferences for, forest landscapes in Britain dealt with, *inter alia*, gender and safety issues. For example, Lee *et al.* found evidence that women were worried about going into forests on their own, although they provided no explanations as to why this might be the case. The study also failed to investigate the views of women who did not go to the forests when in fact their responses would have been particularly revealing.

Apart from the scant research in Britain, in the US, studies which explore human relationships with nature still tend to use colour photographs and rating scales in questionnaires rather than in-depth interviews and discussions (see Schroeder, 1991; Schroeder & Anderson, 1984; Schroeder & Daniel, 1981). This is certainly true in the exploration of issues about personal safety. In these analyses, as Burgess (1993) points out, there is no exploration of what the safety issues might relate to, and no indication whether gender made any difference to the responses.

Burgess' (Burgess, 1993, n.d.; Burgess *et al.*, 1988a, 1988b) own work rectifies some of these shortcomings. In separate studies dealing with different types of natural areas—open green spaces and forested areas—Burgess explores women's relationships with nature. She shows how women fear both types of natural settings, and that their fears are all socially based, anchored in fears of crimes against people. In the Greenwich open space study, Burgess *et al.* (1988b) (see also Burgess *et al.*, 1988a) discovered through their small group discussions that women are ambivalent about going into natural areas. On the one hand, they enjoy the experience; on the other hand, they are fearful, particularly of 'wild' or densely vegetated areas (Burgess *et al.*, 1988b). This is true too in the study of woodlands (Burgess, 1993), in which all the women involved in the study, regardless of age and ethnicity, expressed fears of being in the woodlands by themselves, and often with just one other person. At the discursive level at least, the fears appear to be socially based rather than reflecting fears of nature *per se*, and include concerns for the safety of their children and fear of sexual violence (ranging from men exposing themselves, to rape and murder). As Burgess (1993, p. 52) goes on to elaborate, the fears are not confined to women alone, because even for some men, the steady erosion of confidence caused by the media's sensationalist coverage of crime (and particularly sex crimes), has had some impact on their perceptions of risk and heightened their fears for 'their' womenfolk and children. Indeed, in a later study, Burgess (1996) has highlighted the fact that men were concerned about becoming victims of robbery with violence, getting lost and therefore committing trespass, and becoming victims of male rape, especially for teenage boys. The nature and perhaps extent of men's fear was therefore somewhat different from women's.

Burgess *et al.* (1988b) argue that these feelings and patterns of activity reflect the inequalities of power between men and women. Women's fears prevent them from going out on their own; if they do and something happens to them, they think it is their own fault. Further, husbands, fathers, brothers and boyfriends may not allow 'their' womenfolk to go out alone for reasons of safety, and thus may exert control on 'their' womenfolk.

The inequalities of power are further evidenced in the fact that adult males are the only ones who seem to have an unequivocal freedom of choice to go out into the woods and 'be alone'. Women do not have that option due to the fears they experience. Further, women's engagement with natural areas are also

confronted by yet other constraints: they have fewer opportunities to get out of the house and escape for a while, particularly when they have family responsibilities such as children and elderly relatives to look after.

Local Context

Singapore is a highly urbanized country; its 'city-state' status bears this out. This was, however, not always the case. Clearance of natural areas began in the late 19th and early 20th centuries, and gathered momentum particularly in the post-1960s after independence from the British Colonial authorities. Specifically, when the newly-constituted government of Singapore achieved internal self-government in 1959, it was confronted with a plethora of problems, amongst them, rapid population growth, housing shortages, high unemployment and poor infrastructure. As part of the national efforts to address these problems, various economic and social programmes were initiated which necessitated an immense degree of land-use planning, and land and building development. Such planning and development often entailed clearance of natural areas, from forests and ridges to swamps and coral-fringed coasts, as well as damming of rivers for reservoirs. The result was that the proportion of Singapore covered by forests decreased from 6.5% in 1960 to 4.4% in 1996 while the proportion covered by mangroves dropped from 7.9% to 2.4% in the same period. Correspondingly, the proportion of built-up area almost doubled from 27.9% in 1960 to 49.3% in 1996 (*Singapore Facts and Pictures, 1996;* Wong, 1989, p. 774).

Just as Singapore's natural areas have faced clearance over the years, other forms of nature have been 'constructed' with the aim of satisfying various human needs. These take a variety of forms, including parks that have been specially designed, constructed and planted with vegetation; trees and shrubs particularly selected for roadsides, road dividers, car parks and other such open spaces; creepers trained onto walls and overhead pedestrian bridges and so forth. With this 'construction', Singapore's landscape transformation from dense tropical forests to an equally dense built-up environment has entailed a paradox of sorts: while on the one hand, natural areas continue to be destroyed, on the other hand, various policies and actions have been introduced to green the city. The result is that the form of nature with which Singaporeans have become familiar is managed messicol vegetation[1] which was deliberately planted to provide some balance in an increasingly urban environment. For the average Singaporean, there is little contact in Singapore with naturally occurring unmanaged greenery and wildlife.

This paper comes out of a larger research project that uses green corridors[2] as the site of study, exploring human relationships with nature in Singapore where few areas of nature remain in their original form. Our concern in the project is to examine what kind of wildlife and habitats can actually be found in these green corridors, how people use these green corridors, and the relationships between human use and wildlife needs. Specifically, we are interested in understanding what kinds of interactions exist between humans and nature; whether nature attracts human presence, particularly in a context where natural areas are scarce and a generation is now growing up within an urban jungle rather than a more natural setting; and what impact human activities along these corridors has on nature. The research is ongoing, and this paper draws from that part of the research specifically concerned with human-nature interactions. The
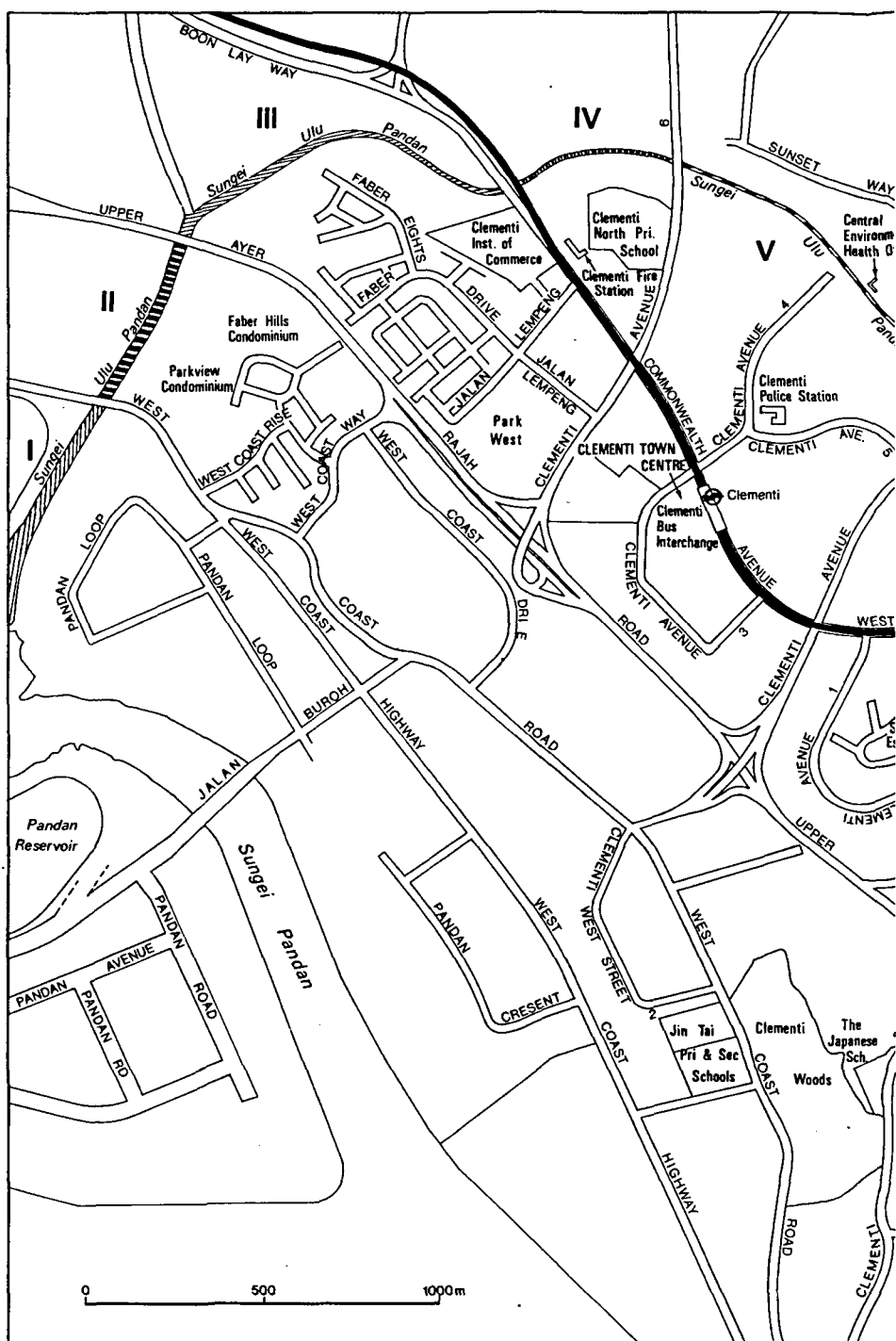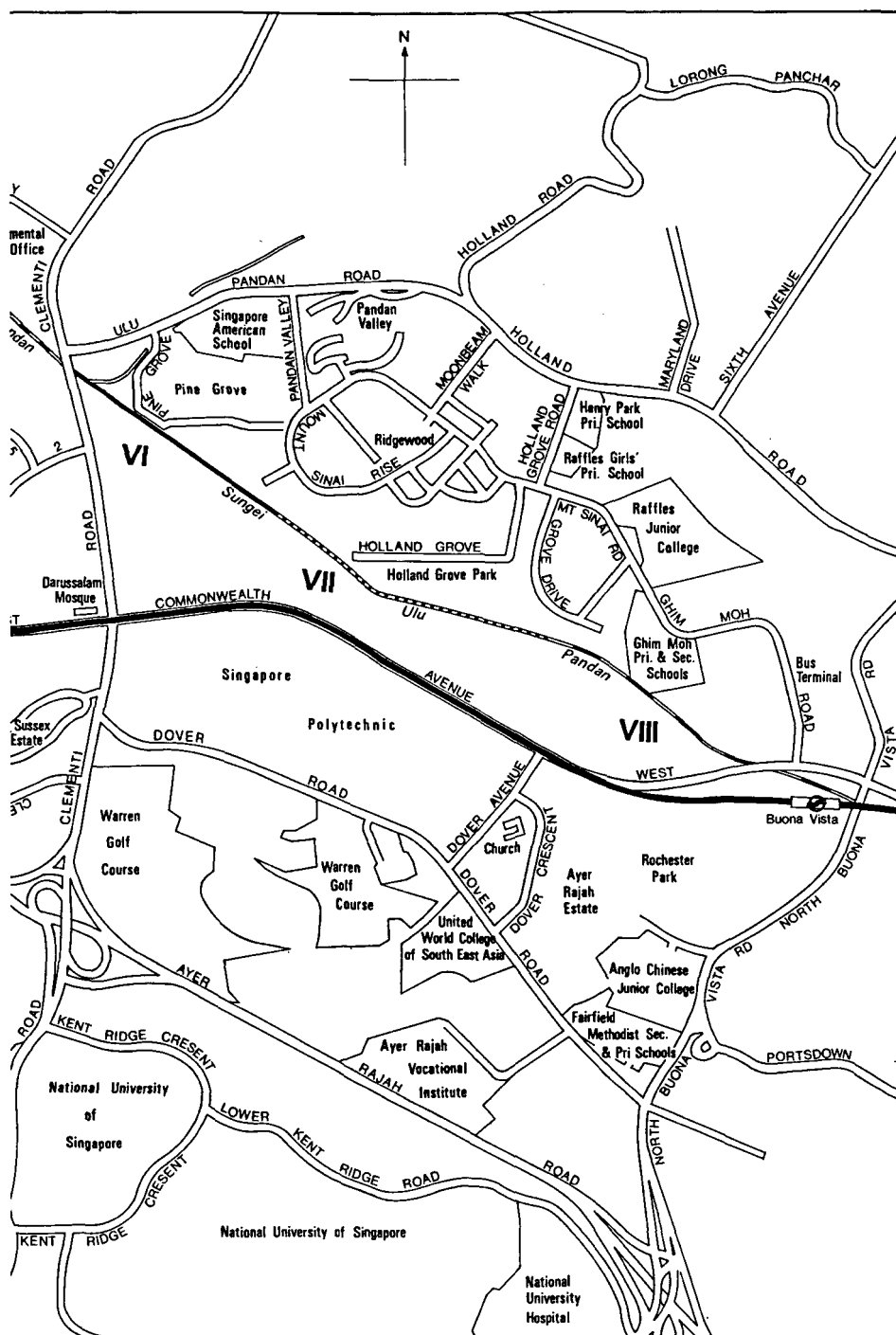
Figure 1. Ulu Pandan corridor.
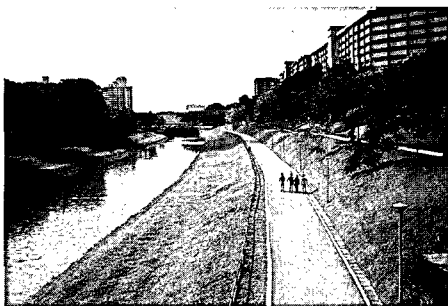
Figure 1.—*continued*

Figure 2. Part of the northern section of the canal from Clementi Road.

Figure 3. Woodlot to the Southern end of the Canal.

data on which this paper is based were collected through two of the various methods used in the larger project, namely focus group discussions about use of and interaction with nature, and household surveys in housing estates near a sample green corridor (Ulu Pandan Canal) (Figures 1, 2 and 3).

Burgess (1996, p. 130) has cautioned about the confusion between focus groups (the single group interview originating in market research), and in-depth discussion groups which adopt psychotherapeutic traditions, in which 'individuals freely discuss their experiences and values while observers attempt to infer unconscious motivations from their interactions' (Goss, 1996, p. 113). The former are thought to be most advantageous when time in the field is relatively short or when policy recommendations are required quickly. The latter usually involve several sessions with the group and therefore require time and commitment from members. In our context, it proved impossible to locate participants who would be willing to give their time over a few weeks to attend group discussions that would have allowed for in-depth discussion groups. We were, however, convinced of the value of a group context in this research because we felt that it would provide valuable insight into social relations and the information obtained reflected the social nature of knowledge better than a summation of individual narratives. At the same time, it would provide access to emic categories of knowledge, that is, to concepts and meanings of everyday life. As Goss and Leinbach (1996, p. 117) argued, 'With an audience of peers, participants are more likely to describe their experiences in locally relevant terms, rather than attempt to impress or please the research, or use language and concepts that they believe to be the researcher's'. Given our preferences, and bearing in mind our constraints, the single group interview (focus group) was therefore the only viable group option.

Five focus group discussions were conducted with the following groups of people: Ulu Pandan corridor users[3] (two groups), young adults (tertiary students in their early to mid-20s from nearby tertiary institutions), teenage students (from a nearby school), and an all-woman group drawn from members of a nearby church. Each group comprised between 4 and 12 persons, including both males and females (save for the last) and each group met once for 1½–2 hours. The user groups comprised volunteers identified through earlier questionnaire surveys conducted in the surrounding neighbourhood and on-site. The young adults were recruited through student organizations in nearby tertiary institutions. The teenage students were recruited with the help of a teacher from a nearby school who sought volunteers from her classes. The all-woman group

was recruited with the help of a priest and a lay leader and was convened because of Burgess' (1993; Burgess et al., 1988b) findings in the context of Britain in which gender differences were evident in the use and experience of nature and in which it was found that an all-women setting facilitated discussions of issues that concerned women. The views expressed by this group of women provide the main basis for our discussions below, although the views expressed by women in other groups have also been incorporated. The only discussion groups that focused to a large extent on Ulu Pandan Canal were the user groups, while all the other groups discussed their use and experience of nature in more general contexts. The logic of theoretical sampling (Mitchell, 1983; Strauss, 1987) that underpinned the decision to include an all-woman group also underpinned the choice of the other groups.

All the groups but two (the user groups) comprised people who knew at least one or more person(s) in the group at least superficially (that is, they recognized some people, had chatted with some as acquaintances or were even close friends with others). The user groups comprised people who had not met one another before except for one pair in each group who knew each other superficially. Although each group met only once as in the focus group discussions of market research, we were not guided by the principles and techniques there, such as the use of storyboards and other such contrivances. Instead, group members discussed freely their views on topics and issues that were posed by one of us as a moderator (Kong) or by other group members as the discussion got under way.

Some practical and analytical strategies were adopted to ensure grounded analysis. Aside from the one research team member who moderated the group discussions, they were also attended by a research team member and/or research assistant. Discussions were taped and transcribed by the research assistant, and checked by the research team member(s) attending. The research team member/research assistant attending would take notes as the discussion proceeded though the moderator would not so as to concentrate more fully on the discussion. The research team member/research assistant wrote up notes and interpretations of the discussions, organizing initial themes and topics. Kong would proceed with similar analysis of the transcripts. Team members then discussed any divergent observations.

In addition to the focus group discussions, data were also collected from a household survey of 300 respondents in a housing estate near Ulu Pandan. The questionnaire was aimed at obtaining information on the reasons for use or non-use, the profile of users and non-users, the nature and duration of use, the experience of plant and animal life, the experience and evaluation of facilities and of safety and danger, and design preferences. Not all the responses are of direct relevance in this paper, and relevant information is reported where appropriate.

Nature and Nurture

While our intention in this paper is essentially to understand urban women's experience of the natural world, we wish to emphasize the importance of considering the interplay of male and female discourses on nature because women's and men's access to and experience of nature are mainly negotiated within families and are constructed in relation to one another. Therefore, in what

Table 1. Respondents' companions on visits to Ulu Pandan

Company to Ulu Pandan	Male (%)	Female (%)
Alone	49.3	30.2
With a friend(s)	32.4	17.0
With family	18.3	52.8
Other	0.0	0.0
Total	100.0	100.0

follows, while we draw on women's discussions of their contact with nature, this is balanced where appropriate by views from men. It is also important at this juncture to emphasize that women's experiences are not monolithic and that some differences (but also similarities) were evident in the ways in which teenage girls and young unmarried women (non-mothers) articulated their experiences with nature as opposed to older women who were mothers and grandmothers. Such divergences as well as convergences are highlighted where appropriate.

In our earlier literature review, we highlighted Hallen's (1993) discussion of ecofeminism and the argument that women's nurturing roles must be evoked if ecological wholesomeness is to be achieved. She did, however, caution against the danger of assuming that women were better nurturers than men by virtue of their nature. Without engaging with this question of whether women are nurturers because of nature or history, our evidence suggests that women's (in particular, mothers' and grandmothers') relationships with nature are indeed underscored by a strong inclination towards nurturing: teaching, tending and caring. The most immediate evidence of this is the way in which the all-women's group began their discussions—by framing their experiences of nature in terms of their roles as mothers. Seven of the eight women introduced themselves as mothers or grandmother, and their contact with nature as intimately bound up with their children's/grandchildren's needs. Melanie[4] illustrated this by introducing herself as a grandmother who takes her grandchildren to the Ulu Pandan green corridor for walks. In turn, Ellen began with how she has three small children and how when they were much younger, she would bring them to the parks to play. Likewise, Grace's first words were

> I am a teacher by profession and I have three grown kids. When they were younger, they did enjoy the parks. They were very active children; they need that somewhere to run, to expend their energy, so the parks
> ...

All this is compounded by the fact that in the household survey, a majority (52.8%) of the women went to the Ulu Pandan green corridor usually with family while almost as many males (49.3%) went alone (Table 1). In addition, 47.2% of the female respondents indicated that they went to the green corridor because their family enjoyed it while only 16.9% of male respondents indicated likewise.

While the above evidence is striking, what was perhaps even more telling was the way in which the women talked about their relationships with nature. In the following, we discuss this using three themes that emerged from the

discussions: 'nature as a living classroom', 'nature as recreational space', and 'nurturing (a love for) nature'.

Nature as a Living Classroom

One of the most pervasive themes in the women's discussion group and in the views expressed by mothers in other groups is their role as teachers to their children of knowledge about the natural world. For the women's group, this appeared to be particularly important, perhaps because the social context within which the discussion proceeded encouraged further sharing of views on this topic. In other mixed-gender groups, similar views were expressed, particularly by mothers, but were not picked up by as many group members as in the women's group and the topic therefore did not become as significant a component of the respective discussions.

As mothers, they saw their role as awakening their children to the wonders and workings of nature. Melanie, having done so with her children, now plays this role for her grandchildren. On those occasions when she takes them for walks along Ulu Pandan green corridor, she points out plants to them, naming them and explaining the processes of flowering and fruiting, amongst other natural processes. Evoking her role as a science teacher before she retired, Melanie hopes to nurture a love for nature amongst her grandchildren, in the same way she attempted to do so with students in her science classes while she was still a teacher. Melanie also spoke animatedly about how nurturing children's knowledge of, and interest in, nature does not only come from imparted information, but also from curiosity and love developed through doing. She therefore gets her grandchildren interested in her garden and involved in gardening:

> I think the children enjoy doing gardening. They sort of help pull out weeds ... getting them interested, teach them why these plants have to be pulled out, why those ones you leave and those ones you don't.

Sally shared the view of the importance of such everyday incidental activities as modes of learning for children. For instance, she spoke approvingly of her sister-in-law's garden in which there are all kinds of fruit trees; neighbours who pass by stop to show their children what a mango tree or tomato plant looks like. 'If I had a garden, I would do just that. It's great for children to learn!'

Mothers in the various groups also expressed the view that more could be done in schools and other public places to engage children with their 'living classroom', as Grace termed it. Carrie, for example, insisted that parks in housing estates should have labels against trees and other plants so that children would know what they were looking at. Grace expressed the view that children, when learning science, should be taken out of their classrooms so that they can

> feel what's this leaf like, what's the shape of this leaf, why is it different from this plant, in what ways is it different. I mean, I miss knowing all these also when I was in school and I think that it's very sad because you know, I only learnt from the book, and it's not real to me. It doesn't come alive ... We should start to arouse the kind of interest and curiosity in children.

Several of the mothers, however, recognized the difficulties and lack of opportunities in urban Singapore. As Ellen lamented, schools are now boxed in, like concrete jungles and children do not have the opportunity to learn in the huge science laboratory that the natural world is. She recalls her childhood when she learnt about the barks of trees by running into the school garden and doing bark shading and colouring.

In contrast, men (fathers and grandfathers) either did not express at all, or in as animated and committed ways, their view of the role of nature as living classrooms *for their offspring*. For example, while Heng, a grandfather from one of the users' groups, spoke in absorbed tones about the value of nature as a living classroom, his curiosity was for himself rather than his children or grandchildren. He said:

> I have a lot of questions but I don't know who to ask. I see a lot of beautiful trees, I don't know what the names are. I see the spider webs on top of the grass every morning. Why are they there? How are they formed? All these things ... nobody to ask . .

His frustration that stems from his own curiosity and desire to learn was in contrast to Kathleen and Meilin, women from two separate discussion groups, whose express frustrations were not for their own need for knowledge but from their inability to tell their nieces and nephews the names of trees when asked. Of all the groups involved, only one man, a zoologist, shared his experience of taking his children to the parks and forests and the wonders of nature as children's classrooms. In this instance, it would appear that it was his occupation that predisposed him to such a role.

Given the apparent variance in the way mothers and fathers play out their roles as teachers to their children, it may be tempting to conclude that women still play the role of nurturers more than men. It is, however, important to examine other evidence before drawing conclusions.

Nature as Recreational Space

In as much as the mothers saw their roles as teachers to their children of knowledge about the natural world, they also spoke of the opportunities for recreation that nature afforded to their children. Such opportunities were thought to be healthy and necessary for children to grow up into robust, well-adjusted adults. As Grace and Agnes pointed out, children needed plenty of space to run about, to expend their energy, and so they would bring their children to the public parks and gardens for those precise reasons. But beyond the openness of such spaces, nature also offered other recreational opportunities to children: to feed the fish, climb trees, pick shells, build sand castles, or even to go hunting for eggs that hens had laid! In the ways in which they spoke about the excitement, surprise and adventure they wished their children to enjoy, these women were little different from those whom Burgess (1993) talked to in the context of Britain. There, the women had similarly expressed the view that children needed 'healthy fun' and that nature had the ability to encourage 'the desire to explore and have adventures that everyone recognised as important, valuable and enjoyable—especially for children' (Burgess, 1993, p. 41).

It is perhaps in the recognition of nature as recreational space that fathers and mothers appear to share the closest views on nature and nurture. In the same way that the mothers cited above spoke with relish about the opportunities for children's recreation that nature afforded, Heng, a grandfather, also expressed the view that open spaces were to be appreciated for the opportunities to bring the family out picnicking while Mano, a father of three, spoke about how the best way to occupy his three untiring boys was to take them to the parks and let them run and expend their energy.

Why is recreation in nature important? Burgess (n.d., p. 24) expressed the view that:

> ... the environmental experiences available for children, especially those in middle childhood when they encounter the world for themselves, away from grownups and parental control, are crucial in the development of sane, healthy adults with an appreciation for nature. The needs of children to be able to explore in "safe danger" as one mother put it, ... related directly to the desire to instil a sense of respect and value for the natural world.

Beyond the respect for nature, the women in our discussion group emphasized the importance of being able to 'let go' and allow their children to take physical risks, acknowledged as an important part of growing up. However, they admitted to their tendency to worry. Grace, for example, recognized that she had a 'phobia about the children falling down and things like that'. As Melanie re-iterated,

> I think children now are too controlled. You see, in our days, children would like to climb trees and pluck cherries ... whatever there is they can do. Now, parents have one child, two children. They are so scared that they will fall down and break their heads. I mean, I have two grandsons. Their parents are so worried. They do not have the experience of being up on the tree and they are so scared. They would rather let them sit at the computer rather than let them go out and enjoy the trees and the flowers. I think it's the parents now.

Thus, while the Singaporean women in our group lamented the loss of opportunities for children to roam and enjoy nature, the concern was not with the 'collapse of collective care and responsibility' that Burgess et al. (1988a, p. 465) identified. The worries in Singapore are much less, if at all, with the problems that British mothers worry about: increased delinquency, vandalism, glue sniffing and male sexual violence. Rather, as Melanie identifies, it is the overly protective attitude that parents with few children or even one child adopt, an unintended consequence perhaps of Singapore's highly successful population policy of the 1960s, 1970s and a large part of the 1980s (see Perry et al., 1997).

Nurturing (a Love for) Nature

A third theme that recurred in our women's discussion group focused on two related emotions: the joy of seeing something grow as one nurtures and tends it, and the love for nature that develops out of this bond with it. Alicia's delight as she recalled her joy in seeing leaves sprouting from her seeds was palpable:

I buy those plant seeds from the shelves, the supermarket or sundry shops, and what I will do is I label all my little pots. It's such a joy when you come back from school and you see the leaves growing and when it is slightly bigger, I will transplant them to the ground and the beautiful thing that comes out of it is the whole plot of colourful flowers. I even cultivated this wood rose and they told me that it attracts snakes. These are very colourful plants and the colours are very attractive.

Similarly, Melanie speaks of how she 'simply love[s]' to see 'the plants flower, the young shoots come out ... it's exactly what I like to see—a young plant grow, and really come out!'

While women express such delight for nurturing unreservedly, it is striking that the only man in all the different discussion groups who even expressed any like interest, at least at the discursive level, was undoubtedly more subdued. John had this to say:

I started gardening as a hobby but because I live in a flat, it's all in pots and with the artificial lights that are on the whole night, I can't get the plants to bloom.

It is, however, difficult to ascertain if the distinction is solely borne of gender differences or whether the social contexts of the different groups did not facilitate men's/boys' expressions of pleasure at and partiality for nurturing.

In any case, it was evident that amongst women, with nurturing comes a love for nature that becomes painful when the natural world is destroyed. Melanie captured the sentiment in a straightforward unequivocal manner:

When you see the trees grow, and when somebody comes and cuts it off, then you really get very upset.

Her personal experience obviously contributed to her aggravation:

I planted a mango tree and then the Ministry of Environment came and cut it down. So I mean, you plant something and you see it grow and then they cut it down because it is against ENV's [Ministry of Environment's] regulation and you feel so sad. I didn't know that I shouldn't have planted in the place where it's near the street light.

Grace went one step further and suggested that because children today have little contact with, and are not involved in, tending and nurturing trees and plants, there is little love for nature. Indeed, she was confident that if a survey was done with children about what television programmes interested them, they would not mention nature documentaries at all. She felt strongly that without the opportunities for children to 'grow with nature', they would never 'have this love for it'.

What about Non-mothers?

Hitherto, our discussion has focused especially on the views expressed by mothers and grandmothers from the various discussion groups. The question arises as to whether young unmarried women/girls or married women who were neither mothers nor grandmothers expressed the same links between their

experiences of nature and their role as nurturers. In general, the construction of nature as classroom and playground for children is not obvious amongst non-mothers. Some did, nevertheless, acknowledge the importance of such a role. For example, Rita, a single woman in her mid-30s, lamented that parents nowadays did not bring their children to nature areas enough, resulting in a generation of young children who had little contact with, and affinity for, nature. For younger teenage girls, however, such thoughts did not surface at all, for understandable reasons.

There was also evidence to indicate that non-mothers also perceived and enjoyed a relationship with nature that was built on bonds of nurturation. The same sentiments of joy and excitement in watching a plant grow and a flower bloom were evident amongst teenage girls, for example. Jessie, a reticent 15-year-old, became somewhat more articulate when the discussion in her group began to shift towards tending the garden. Even weeding was an enjoyable activity for her when she placed it within the context of the opportunities she was giving to the other plants to survive and grow.

Danger and Delight

Apart from the association with the nurturing process, another way of conceptualizing women's relationships with nature is in terms of 'danger' and 'delight', a fine balance between ambivalent experiences of fear and enjoyment (Barker, 1995; Burgess et al., 1988b). While communing with nature is exciting and provides an almost transcendental link to creation, the experience can also be threatening and frightening. As Barker (1995, p. 9) points out, the 'anarchy of the wildwood can be frightening'. Such ambivalence was apparent for many women in our discussion groups.

The delight that interviewees expressed was predicated on the sense that nature represents unpolluted environments, the 'green and clean air', which human beings can enjoy. Such environments are thought to be untainted by the contagion of human actions. However, in the context of Singapore where there are few such untouched areas, views expressed were sometimes qualified, consciously or otherwise. Agnes, for example, was careful to add a caveat about the wonders of the 'countryside', couched in terms of her lack of scientific knowledge:

> I don't know whether it's true, is it? I mean if you live in the kampong (village), the countryside, you're healthier, because the oxygen there is given out by the plants during the day and it's clean and unpolluted.

Delight also stemmed from the feeling of being unfettered, deriving from the freedom and openness associated with nature. This is generally thought to be lacking in highly urbanized Singapore and many interviewees spoke about 'escaping' to neighbouring Malaysia. Melanie's exhilaration was palpable: 'the moment you get to Malaysia, you see mountains and you feel free! You just have that feeling!'

Part of the feeling of being in nature and experiencing the unfettered and the unspoilt was a sense of peace and calm. Nowhere was this more apparent than in Grace's expression of enjoyment at being surrounded by open fields:

> ... you feel that you are not alone because you have nature around you
> that's alive and you feel the calm, the peaceful surroundings and you
> can be yourself. You don't have the same kind of feeling here because
> you have so many people around you, people walking here and there.

Likewise, Agnes found peace and calm in different aspects of nature: looking out at the horizon while standing on the beach imparted a 'beautiful calm feeling' and lying in the shades of trees and admiring the 'amazing shape of the branches and roots and leaves' gave a 'sense of quiet peace'.

The converse of an unfettered relationship with nature that is anchored in freedom and openness, peace and enjoyment is a relationship grounded in fear and a cognisance of danger. Burgess and her co-researchers have pointed out this ambivalent and simultaneous relationship that women have with nature. Our work supports this finding. What is different though is the different emphases on the sources of fear in a vastly different social context. Burgess (1993, p. 58) emphasized that, in Britain, particularly in a climate of social disorder and a breakdown of trust,

> it is no longer possible to trust other people who may be present in
> woods and forests. This pervasive feeling reflects a breakdown of one
> very important element of public life—the ability of women and men,
> children and adults from different social and cultural groups to be able
> to negotiate their rights to be in public places without fear of coming to
> harm.

This, she argues, is part of a wider social debate in Britain about 'the collapse of law and order'. Singapore, however, is well known as a safe city where public places are almost crime-free. This is evidenced in crime statistics. Indeed in 1993, for example, Singapore was ranked in the World Competitiveness Report as the safest city in the world in terms of people's confidence that they and their property were safe (Loke, 1994). How then does this affect women's experience of nature?

Of the 300 respondents who were surveyed, 124 used the Ulu Pandan green corridor, and of these, only 19 or 15.5% felt unsafe there. More women felt unsafe (20.8% as opposed to 11.3% of men). For those who did not go to the Ulu Pandan green corridor, only five (2.8%) indicated that it was because they thought it dangerous. Four of these five were women. Thus, there exists some degree of fear amongst women although it does not appear to be pervasive.

What is the nature of fear amongst women? Unlike the British context, the fears that Singapore women confront are more varied and encompass both socially and naturally based fears. The former is evident in two ways: first, fear of personal crimes, particularly sexual violence (flashing, rape, molestation) but also property crime (snatch thieves), and second, fear of an absence of human company. As Rita, a member of a mixed-gender Ulu Pandan users' discussion group articulated, she worries when she is at the last stretch of the open space at Ulu Pandan: 'The area is forested, you see ... and I always go on my own, so you feel a bit scared if there's nobody.' Kwan, however, argued that such fears of crimes are probably greater in a car park, or in urban areas in general, than in green open spaces. In either case, the women's fears have not been so overwhelming as to stop them from going to nature areas. At the same time, it is important to note that Rita somehow felt unjustified or awkward about her

fears, as evident in the fact that she depersonalized those fears in the above quotation, suggesting that *'you* [rather than *I*] feel a bit scared'. This depersonalization was evident in a lot of her statements and also amongst a few other women, indicating that they were perhaps uncomfortable in acknowledging their fears and/or that they felt they were being 'silly', to use one woman's word. In this sense, the women seemed to trivialize their own sense of danger, which they nevertheless felt, compounding the tensions that they already faced between wanting to go and enjoy natural areas and holding back.

Singaporean women's fear of being alone in natural areas is contrasted to the views expressed by a number of men. Kenneth, a 23-year-old member of the young adults group, epitomized this in his explicit delight in going to such areas *precisely* because there is nobody there. It is a 'way of getting away', 'to be by myself and my own thoughts'. This is a luxury that women would like to have, but which they are careful not to indulge in.

Apart from socially based (human) fears, the women also expressed fears of various aspects of nature. Wildlife threats featured significantly for some women, and snakes, in particular, posed a threat to various group members. Indeed, Alicia expressed the view that she was not afraid of people but of snakes. Others expressed the view that they did not know what animals they might meet and how dangerous these might be. This fear of wildlife differs from Burgess' (n.d.) finding that people had no real fear of wildlife in Britain.

For a small minority nature also posed certain threats anchored in cultural beliefs—of tree spirits and the like (see also Burgess *et al.*, 1988a, for the British equivalent of forest symbolism in folk and fairy tales). A teenage girl recounted stories her grandparents had told her about *pontianak* (female spirits) that lived in certain trees, though she found few other supporters. Many women, when confronted with the issue, expressed the view that they were too busy enjoying their jog or the scenery to be thinking about such fears. Nevertheless, in the mixed-gender user group, a male member expressed the belief that such fears were 'women's fears'. A certain gender construction was obviously at work!

Other fears were rooted in natural or social conditions, but contributed to all the various fears hitherto discussed. For example, there was a fear of darkness. For Soo Ling, a female undergraduate, it was because of the unknown wildlife that lurked where visibility was bad:

> I find nature especially scary at night. Looking at the oceans and the seas at night, I never know what's lurking underneath.

Rita and Kwan from one of the users' groups expressed the view that they would not be able to tell in the darkness if there were people lurking around, let alone recognize them. A 22-year-old single female undergraduate, Sue, from the young adults group, similarly expressed the view that

> If the lighting is really too poor, then it makes you feel very unsafe to walk through especially during the late night. And um … unless the place is quite busy, there are people walking by, nearby, it's not all forest and just trees, there are activities around it, that will be acceptable. But it might be a quiet path and if it's just yellow lighting, I won't walk through it.

Contradicting her, a male group member, Melvin, argued for yellow lighting, if lighting was to be available at all, because, in his estimation, 'yellow gives you

this homely feeling and tend to feel romantic'. However, he later expressed the view that the darkness of 'truly wild areas' is repulsive to him because one then cannot see where one is headed and may have to confront threats from animal and insect life. While Melvin introduces some ambivalence in men's attitude towards darkness, another exchange between a male and female user of a users' group crystallized the issue of light and darkness as a tension between security and aesthetics that men and women confronted and which they expressed differential preferences for. In a mixed-gender users' group, one of the men, Heng, complained that artificial lighting spoilt the breathtaking beauty of the natural break of dawn, with all its colourful changes. Rita, however, responded candidly:

> Maybe because you are a man, you feel different, but for a girl or lady, they might feel afraid because it is very dark, you see.

An interesting discourse developed subsequently in which Heng and Rita constantly changed the topic at every opportunity, Heng to direct the discussion away from lighting issues and Rita to bring the discussion back to it! Indeed, Rita returned to the issue three times, and each time, Heng changed the subject by asking questions or offering opinions about quite different issues. The issue was resolved when Kwan addressed the tension between security and aesthetics explicitly:

> That bridge—all the lights are low and on the outside—so when you walk, you can only recognise the person when he's quite near. So if you want to talk about security, of course, it is not very good. But it's nice if you don't have the lights.

Apart from the issue of light and darkness, another source of fear was the unknown. As Agnes shyly admitted,

> ... if you ask me to go to the nature reserve, I can confess that I have never stepped into one because it's so alien to me. I don't know what to expect. I don't feel secure.

The need to feel in control, to know what to anticipate and how to handle the circumstances was extremely important to many females. Many teenage girls expressed the fear of getting lost. Similarly, Agnes, a woman in her 40s, participating in the all-woman discussion group, went on to elaborate that she could handle 'well-planned parks' that were 'properly arranged' because she would know the 'layout' and directions to take for escape. However, if nature areas were not of the 'well-planned' variety, 'familiarity would help', so having experienced and knowledgeable 'others' to bring her and show her around at least once first would assuage her fears.

For Singaporean men, the unique experience of National Service, a compulsory 2½ year stint in the army, appears to have contributed significantly to their sense that they would probably be able to negotiate their way out of a 'jungle situation'. The fear expressed by women is therefore not as apparent for men. Nevertheless, it is also important to emphasize that men's experiences and views are not monolithic either, and despite the relative lack of fear of getting lost, some men express an intense lack of desire to find themselves in such situations

while others embrace the feeling of not knowing where one was and the challenge of then finding one's way out.

While women's experience of nature in Singapore tipped between delight and danger more evenly than for women in the British context for whom fear was very prominent, one constant remained between the two differing social and cultural milieux. This was the fact that the feelings and experiences reflected and re-inforced the differing opportunities for men and women: men could more readily go and enjoy the park or the nature reserve freely while women were more likely to tussle between their anticipated enjoyment and fears of potential dangers. This need to work through the ambivalent feelings is compounded by the fact that, for some women, there are simply too many other material constraints for them to even contemplate an occasion to enjoy nature: children and/or elderly folks to look after at home and household chores, in addition to formal work. These unequal opportunities underscore the inequalities in power between men and women on two counts: first, in terms of how women have less power over themselves and their desired activities than men have over their own lives, and second, in terms of how men have control over women's lives. As one male interviewee put it,

> The man controls when his girlfriend or wife goes out for her own
> good. Otherwise, the male will protect the female if it's dangerous!

In two brief sentences, he had captured the essence of the roles of and relations between men and women as they exist, underlining the subordinate position of women in society.

Conclusions: planning recommendations

Given the slightly varied experience in low-crime Singapore and the lesser urgency to deal with women's socially based fears, as compared to Britain, there are therefore greater possibilities for women to engage in activities in nature areas, provided the nature-based fears are addressed as well. In this concluding section, we wish to put forward recommendations for planning nature areas which address women's concerns and therefore encourage and facilitate greater use of such areas.

There are a range of possibilities for addressing women's nature-based fears. Greater knowledge of what types of wildlife exist in natural areas and what real threats they may or may not pose could go a long way to alleviate fears of unknown animals, often imagined to be dangerous. Information about how to react when coming into close range with wildlife especially in unexpected situations would also be helpful. Such information could be provided in the form of information boards in nature areas or in brochures, for example. It is important though to provide balanced information of the dangers of wildlife as opposed to information that emphasizes the menacing and poisonous qualities of wildlife, which may have a negative effect on potential visitors (see for example, Chou, 1993).

Other recommendations could address both nature and socially-based fears. For example, Carrie, a member of the all-women's discussion group, suggested that in nature reserves, there could be rangers. This harks back to Burgess et al.'s (1988a) suggestion that more park staff could go some way in enhancing

security. Indeed, such staff could have enlarged responsibilities beyond the provision of a sense of safety. They could be people who are knowledgeable about various aspects of nature and who can provide information to interested and curious visitors. This would address the strong interest that women show in nature as a living classroom, particularly for their children.

Without suggesting that busloads of people be brought in to nature areas, it is nevertheless useful to consider introducing activities that will draw more people to nature areas. As Peiling, a female undergraduate, suggested, 'if the place is busy with people engaged in activities, then it's not so frightening'. Some examples are those which involve the community in planting trees and tending the vegetation, and educational visits for schoolchildren. At the same time, in the quest to bring cultural activities into the everyday lives of ordinary Singaporeans, cultural performances could be brought to parks, thus attracting more people from the neighbourhood. Picnic spots could also be incorporated, although simultaneous educational programmes must also be launched to ensure that people do not vandalize or pollute the landscape with their litter. People should be kept informed of events, progress in their projects, and wildlife sightings, such as the arrival of migratory birds. In other words, some areas should be promoted as everyday places integrally bound to the lives of the community rather than a specialist nature reserve for scientists and 'experts', while others may have more limited public access, depending on the sensitivity of the flora and fauna to human disturbance.

Other strategies that might ameliorate some of women's fears have to do with landscape design. Lighting, which was an issue for some of the women, appears to be one area in which improvements must be made, but in a sensitive way. Likewise, improving sightlines is important such that women can see what is ahead of them although once again, it is important to be cautious in recommendations. After all, as Widermann (1985, quoted in Burgess, n.d.) pointed out, 'hardly any woman would advise such simple measures as taking away dense shrubbery, or lighting the parks like some kind of soccer field'. Some of the group members, for example, suggested that yellow lighting and/or lighting closer to the ground would be more acceptable than fluorescent lighting 'high up like street lamps or flood lights'. Otherwise, as Melinda pointed out, 'if it's white and so glaring, it spoils the natural setting'. The idea therefore is not to design the landscape to such an extent that the character of the natural setting is destroyed while at the same time providing sufficient design features to ensure that a certain sense of security is imparted.

On many occasions the women in our discussion groups showed that they enjoyed their contact with nature tremendously—the nurturing that they engaged in and the delight was unmistakable. At the same time, these joys were tinged with fear of dangers, real or imagined. These fears, however, can be managed, especially given that the wider social context in Singapore in terms of security, law and order is very stable, unlike that in Britain, for example. In bearing in mind the needs of women, planners and designers may actually become more efficacious in planning for a particular segment, indeed, a large segment, of the population, than they have hitherto been. In fact, more research is needed that considers the specific needs of different groups of females (for example, of different ages and races), which will represent a step away from considering women as a homogeneous group.

Notes

1. This refers to vegetation planted by humans and in a strict sense refers only to crops planted for harvest. Hill (1973, p. 31), however, extends the meaning to include plant communities which are deliberately planted and maintained for purposes such as aesthetic enjoyment and recreation.
2. As part of its effort to green the city, in the 1991 Revised Concept Plan, the Urban Redevelopment Authority introduced the idea of green corridors, longitudinal open-space landscaped routes that wind their way through urbanized developments. They are natural linkages into which wildlife and people may retreat, and a venue for migration of fauna, and act as park connectors. The idea was endorsed in the Ministry of Environment's (1993) *The Singapore Green Plan—Action Programmes*.
3. This refers to people who physically use the corridor for all kinds of activities: jogging, cycling, walking, bird-watching and so forth (see Briffett *et al.*, 1997) for a comprehensive list of activities that people were observed to be engaged in.
4. Pseudonyms are used throughout the text.

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