

# The Fundamental Importance of Outdoor Space in the Experience of the Built Environment

## A Developmental Psychology Perspective on Some Recent Swedish Studies

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### Summary

In Sweden housing research has been substantially supported since the 60s by the state in order to promote better housing conditions. Therefore housing research has been closely tied to planning issues. Recently, however, it has been suggested that housing research instead should be tied to the traditional scientific world of the universities and the direct incorporation of one housing research body, the National Swedish Institute for Building Research, into the university system has been proposed. It has also been suggested that the state stop funding housing research as a specific research topic.

Sweden's tight economic situation today is a very realistic threat to the future of housing research. Looking at this field from a scientific point of view, it is clear that after having developed in various directions over the years for scientific reasons, it must now consider future possible developments. In this article one such development is suggested, in showing how recent research on outdoor space fruitfully can be analysed from the point of view of developmental psychology. It is argued that combining characteristics from both planning dominated housing research and theory oriented academic psychology would be beneficial to both parties and thereby create new interesting research topics.

### Résumé

Depuis les années 60 l'Etat suédois a beaucoup promu la recherche dans le domaine de l'habitat. Il voulait améliorer les conditions de logement et la recherche a donc été étroitement liée à des questions de planification. Plus récemment, on a pensé qu'il serait plus utile de confier le travail au monde scientifique traditionnel des universités; l'intégration d'une unité de recherche (l'Institut national suédois pour la recherche dans le domaine de la construction) au système universitaire a été proposée. On pense aussi que l'Etat ne devrait plus financer la recherche dans le domaine de l'habitat, en tant que champ d'étude spécifique.

Les problèmes économiques auxquels la Suède doit maintenant faire face représentent une menace très concrète pour l'avenir de la recherche. Si l'on considère ce domaine

d'un point de vue scientifique, on se rend compte qu'il va devoir trouver les moyens d'évoluer, après une longue période au cours de laquelle il s'est développé dans toutes sortes de directions. L'article propose une évolution possible, en montrant que les études récentes qui se sont intéressées aux espaces extérieurs pourraient être analysées utilement sous l'angle de la psychologie du développement. L'auteur pense que, si l'on combinait les approches utilisées par les planificateurs ayant dominé la recherche sur l'habitat et les théoriciens de la psychologie universitaire, on pourrait créer de nouveaux sujets de recherche intéressants.

## 1. Background

Research on people and outdoor space in Swedish environmental psychology has been carried out by quite a lot of landscape architects and much of the research has taken place at the departments of landscape architecture in the Agricultural University of Sweden. The planning background of these researchers might explain the fact that much of it has been concerned with questions experienced as being of relevance to planning. The closeness to planning issues has characterized many other areas within Swedish environmental psychology also when the researchers have not had any planning educational background but have been psychologists or sociologists. The reason for this is that much of the money put into the research has come from the National Swedish Council for Building Research. The Building Council has had a strong influence on the development of Swedish environmental psychology in two important ways.

First of all, as mentioned, the Building Council has funded most of the research projects carried out within the field; secondly, it has shown a responsibility to forward the area by publishing - most often in Swedish - summaries and overviews of research results. It has also arranged national and international research seminars and conferences.

There are today short courses and single lectures in environmental psychology for students of landscape architecture, architecture and psychology but so far there is no particular education in environmental psychology and there does not exist any department of environmental psychology within the Swedish university system. So far, therefore, environmental psychology is not a university discipline. The development of environmental psychology, however, seems to have reached a position today where an integration with established academic branches of psychology would be quite fruitful to both parties. Environmental psychology can give to established academic psychology interesting research on the actions, behaviours as well as experiences of individuals and groups of individuals in various types of settings and thereby support the demand of some academic psychological researchers today of putting greater emphasis on the study of the interplay of people with their surroundings. The effort within environmental psychology of seeing environmental problems in an overall perspective as well as the ambition to integrate research with "real" problems could therefore be of value to academic psychology. Academic psychology, on the other hand, can give back to environmental psychology theoretical and methodological consciousness. By referring to the broad field of conceptualisation of various theories within academic psychology, research issues within environmental psychology might more easily than today be viewed from a variety of theoretical aspects. This would stimulate the research and make it of interest to a wider group of researchers.

As will be seen from the following description of recent research results, the field is still developing quite creatively. This is a fact that more than anything else might have to do with a broader understanding of the subject by planners. Housing research has existed in Sweden since the 40s and the research has been carried out with the aim of promoting better housing conditions, an important aspect of the Swedish Welfare Program. Most of the housing research, therefore, has been closely connected with planning issues. The formulation of standards and norms for the design of various types of dwellings and outdoor space has been based on such research results. For different reasons the attitude within planning towards people has today become more complex. There is an insight that planning authorities no longer alone know what serves people best but that people should be invited to cooperate with planners. Getting into more direct contact with people makes it therefore more natural to try to understand planning issues in a psychological way. Besides this "practical" argument for cooperation, there is another emphasizing more and more the ultimate importance of the physical environment for the well-being of man. This has meant that people within planning practice have accepted the fact that this is a question, which needs thorough research investigation.

Most of the research to be mentioned here has received support from the Swedish National Council for Building Research, where a special fund to promote research on "green open space in cities" has existed since 1983. Otherwise funded research will also be mentioned. In order to suggest the suitability of putting environmental psychology studies within the broader frame of traditional academic psychology, some recent Swedish studies will here be seen from the perspective of developmental psychology.

## **2. A short history of the development of the field**

Environmental psychology began in Sweden during the 60s and 70s and it integrated into it that part of the previously mentioned housing research which dealt with people and the built environment. At that time research on people and outdoor space was directed mainly towards measuring the attitudes of the general public towards various types of landscape settings and especially the aesthetic appraisals of such settings. The method was classification of visually presented stimuli. Such appraisals seemed to make people behave in a way which was often unnatural to them. The reasons for people's aesthetic preferences were not made clear and the relevance of people's choices to their way of living was not investigated. Therefore, the measurements had an abstract quality about them and the results seemed at a long distance from the choices open and of true interest to the people participating in the measurements. The ambition to find general preferences, typical of everybody and no one particular, neglected what has come to interest researchers much more lately, that is the varying attitudes of people of different background and ages. As to the planners themselves, it has now become a practice at some institutions educating architects and landscape architects to try to make them conscious of their own environmental preferences by having them activate their environmental memories in courses on environmental biography early in the education. The result of such courses seems so far quite successful and much appreciated by both students and teachers. Environmental biography has not yet become a research topic of its own in Sweden but the benefit of this topic to future planners is starting to be realized. With these experiences the future planners are made aware of their own "deep-seated" preferences as well as of the fact that other people may have other, but equally deep-seated preferences as they themselves.

A short history of the development of Swedish research on outdoor environments, then, shows that what started as studies of attitudes and appraisals of most often aesthetic aspects has become studies on the symbolic meaning of outdoor environment to different kinds of people as expressed in their behaviour in and ideas of the physical environment. One common type of outdoor environment studied used to be recreation areas. Such areas are still being studied but more as seen in the context of people's general everyday behaviour than from "purely" planning relevant aspects. Society is undergoing rapid changes and new life-patterns are emerging, which are being acknowledged in the research.

Methodological changes have been from prearranged experimental-like study conditions to more natural study conditions favouring spontaneous reactions from people. Single-method approaches have been substituted for by multi-method approaches. (For a general description of Swedish environmental psychology in the early 80s, see Küller, 1987).

### **3. The fundamental importance of outdoor space in the experience of the built environment as seen from the perspective of developmental psychology**

Most of the research carried out by landscape architects on the importance of the outdoor environment has had as its motivating start the conviction that access to open space in the built environment is vital to the well-being of man and that for various reasons - among others densification of residential areas and townships - people in cities have become restricted in their possibilities of getting access to open space and parks in the outdoor environment. A strong support for the motivating conviction of the landscape architects has been shown in empirical research carried out by the author in a developmental psychological study of the emergence of the spontaneous notion of dwelling in children of ages 9 to 17.

In this study it was shown that the meaning of dwelling to children 9 to 12 years old, as expressed by them in written essays, was equivalent to the meaning of outdoors (Nordström, 1990). Only later, at the ages 13 to 15, did the children see dwelling as synonymous to a house rather than to a place. This study was undertaken in response to an observation made by the author when interviewing adults on their housing attitudes (Nordström, 1980). It seemed that the adults' satisfaction with their dwellings was more a question of how the outdoor environment appealed to them than how they appreciated any specific indoor quality of their dwellings. Besides, when expressing their feelings of being at home in places, the adults kept referring to their memories of childhood landscapes and childhood housing environments.

Childhood memories and environmental experiences were clearly knitted together in their conceptualisation and it seemed at times as if a special landscape was almost synonymous with childhood itself to the interviewed persons. (This is something which has been observed also by Sebba (1991), among others). Further, it seemed as if quite a few persons had found it difficult to "accept" as adults living in a landscape radically different from that of their childhood.

The profound impressions of the childhood environment on adults' environmental conceptualization has been stated by some researchers within environmental psychology (see for instance Proshansky & Fabian, 1987). The apparently enduring impact of childhood environments might be due to the fact that children's experiences have a fun-

damental quality to them which stays on with the adult person. That the young person is definitely more dependent on his sensory impressions than the adult person is clear and can be explained by the fact that the adult can rely on his intellectual capacities as well to understand his situation. But understanding his situation in a cognitive way "only" might not be sufficient to give the grown up person a strong sense of reality. And when feeling a strong sense of reality the adult seems to lean back on his childhood experiences and previous modes of experiencing.

In her study of the significance of school buildings to children 7 to 15 years old the environmental psychologist Skantze (1989) has pointed out that children create meaning and develop knowledge not only in the environment but of the environment. That is, they are actively engaged in an interplay with it, investigating its elements with their senses.

"It appears from the data collected that the younger children, approximately in the age group of 7 to 11, relate to the physical environment through their senses. They ascribe feelings and atmosphere to physical aspects and to forms and details in the buildings. Their bodies and their actions prove to be essential instruments for their construction of meaning" (Skantze, 1989, 150).

In comparing the layout of three school buildings with architecturally quite different designs with the descriptions of these schools by the school children, Skantze found that architecturally more varied buildings were particularly satisfying to the children. Skantze's finding is in accordance with what Frost and Strickland found in their investigation of young children's preferences for playground arrangements (1985). In their study, Frost and Strickland found that the children preferred varied as well as spatially distinct playground arrangements. Such arrangements made it possible for the children to engage in intense exploration of the environment, thereby supporting and encouraging their age-related action oriented conceptualization. In her study, Skantze views human development from the point of view of developmental tasks.

"The individual faces demands from the environment as well as from his or her biological process during the life span. As the individual interprets these demands, they are formed into developmental tasks that are different in various life periods. The tasks have to be worked through and solved by the individual" (Skantze, 1989, 149).

While focussing her study on children's use of school buildings, Skantze did also observe children's use of outdoor areas. She found that at the outskirts of the school grounds there was unplanned "extra" green space like small woods, which were much appreciated and used by the children. The observation made by Skantze of the strong value which children put on the outdoors and natural environment is supported also in planning-oriented studies on the layout of school grounds (Paget & Widgren, 1988), making it clear that school grounds with elements of nature are more appreciated and used by children than grounds lacking such elements. Summing up her results, Skantze emphasizes the intimate connection for young children of the environment to their actions and behaviour.

"The younger school children thus exhibit a close relationship between their inner developmental themes and the themes in their self created actions and places. I therefore maintain that the physical environment and the possibilities it offers them in their own eyes is of great importance for the creative actions and for the treatment of their developmental tasks." (Skantze, 1989, 151).

That youngsters might keep using the physical environment at later ages in the spatial way described by Skantze has been shown in a study on how teenagers use public space (Lieberg, 1992). While the developmental tasks of teenagers, to use Skantze's term, are quite different from those of young school children, being directed more towards finding out how society and city life functions socially, it seems that still quite a few teenagers of 17 and 18 might derive such social knowledge from interacting spatially with the environment. It is clear from Lieberg's study, however, that the spatial exploration of the environment was made more intensely by some teenagers than others, who instead chose other ways of finding out about social life. Deriving social knowledge from observing distinctly physical behaviour might at first appear unproductive to its aim. That this particular behaviour can be rewarding to teenagers might be because it is a kind of behaviour which has been natural to them earlier and which they keep doing. Also, what seems to be very important at this age is the distinction of privacy and publicity and in the study by Lieberg this is a matter much elaborated - spatially - by the teenagers.

Moore has described how places - both land and buildings - temporarily abandoned by the adult world might become in the experience of children 9 to 12 - children's own worlds (1990). Children seem to learn about the adult world by studying its visual traces. Having children show him their favourite places in English urban neighbourhoods, Moore found that abandoned places were primarily attractive to children with a strong exploratory urge. The physically obvious abandonment gave such places a "visually readable 'archeological' dimension".

"Abandoned places were haunted by a residual human presence that stimulated the imagination and made it easy for children to anthropomorphise their surroundings; to muse, to make up stories about what might have gone on there, to create a kind of local mythology from found fragments of the past" (Moore, 1990, 162).

In his study on teenagers, Lieberg found that of importance to teenagers' spatial exploration were zones permitting the youngsters both to observe others, adults as well as other youngsters, and to act out themselves. Such areas were verges of the social arena, where the dominant actors generally were adults but which permitted the teenagers to observe, interact and even participate themselves at times. What interested the teenagers were rules and rituals connected with privacy and public behaviour as these were spatially expressed. Areas favoured by the teenagers had an "in-between" quality to them. Lieberg calls them "free zones", emphasizing clearly the active role of the teenagers in finding and defining these - "free" - areas.

"These are created by the teenagers themselves and in general lack permanent borders. They are characterized by three things: first, there is no adult supervision and control. Second, there is no purpose or goal for anything they do. It is a pronounced 'do nothing' culture where the unexpected could happen. Third, the free zones are characterized by emancipatory patterns of action. That is, the actions taking place there are not interpreted or acted out in advance" (Lieberg, 1992, 286).

The tentative character of the teenagers' own behaviour and their interpretation of others' behaviour in the "free zones" is connected with their developmental task of trying out new roles for themselves.

Enumerating types of "free zones" in the neighbourhoods, where the teenagers lived, Lieberg mentions the following spaces:

"These are private places away from the public eye and control, for example basement rooms, shelters, garages or concealed places out-of-doors, where youths can be alone and create and develop their own thoughts and talents" (Lieberg, 1992, 286).

An ethnological study on the city as "living space" gives evidence to the fact that spatial ways of experiencing the environment do not even cease with the teenage period of our lives but can go on in a meaningful way also into adulthood (Werner, 1991). Projecting one's ideas, memories and dreams onto the environment and thus making it "living space", is of course something very different from children's spatial experiences but attests to the fact that grown-ups might keep developing emotionally strong bonds to the physical environment. In the "dialogue" which some people experience to be engaged in vis-a-vis the physical environment, the environment takes on almost a personal quality.

Werner suggests that people viewing the city as "living space" are occupied with questions of identity. To them the city is a place where they can come to terms with themselves, where their liberation can take place and where they can experience a sense of belongingness not possible or attractive to them in their native places. These people can be said to be engaged in a "spatial redefinition" of their identity. The identity that they are seeking is however not primarily an adult identification and the fitness of a social role but rather a new cultural identity. The city represents to them a "free space" much like the "free zones" of the teenagers in Lieberg's study but freedom is now defined culturally.

What has been shown in the studies by Skantze and Lieberg is how children and teenagers learn from physically interacting with their surroundings. And Werner's study shows that some adults keep doing so intensely. Coupled with this "interactionist" mode of behaviour there is a strong sense of freedom. Why is this?

#### **4. Verbal expressions of spatial notions and concomitant emotional development**

In the author's study on the notions of dwelling in children of ages 9 to 17, as was said previously, the outdoors seemed to be of greatest interest to the youngest children. And as was said above, these youngsters emphasized the place of a dwelling. For children 13 to 15 the indoors became more interesting while the oldest children in this study, of ages 16 to 17 - the same age as Lieberg's teenagers - saw the dwelling in a more personal and social context.

The essays, written by 400 children, were content analysed and clear differences were found not only in the contents of the essays but also in the ways the children expressed themselves verbally. The youngest children seemed to view houses and environments as pictures in their heads as they described predominantly perceptual characteristics and they appeared to see their writing as a task to describe in an enumerative way what they imagined themselves to see. Their essays were verbally rather unelaborated and at times even fragmentary.

In contrast to these children did the children of 13 to 15 try and at many times succeed in conveying a coherent verbal context for their ideas on how they would like

to live. The essays were also much longer and richer in content. Language seemed about to become relatively independent of reality evolving into a means of constructing an abstract mental representation of the writers' thoughts. The writers were also becoming aware of the fact that their essays would be read by another person and some of the writers referred to the reader by addressing him directly ("Now if you open the door you can see...").

The oldest children had full command of writing and displayed no need to demonstrate their writing capacities. Their essays are generally shorter than those by the 13 to 15 years. While the written language of the children of 13 to 15 is characterized by detailed fact description, the written language of the teenagers is less so, showing rather a desire to appear personal.

It is clear from the results of the study that the middle age group, with children 13 to 15 years old, is a group in which a great mental change is being manifested. Evidence of this is the previously mentioned increase in the length of the essays as well as the change of contents in the essays. And as was just pointed out the use of language changes radically. These changes have been interpreted as an expression of a general mental change from a preoperative orientation of thinking - to use Piaget's terminology - to a concrete operative orientation. The children of 13 to 15 are about to lose their mental dependence on sensory impressions from the immediate environment and to start handling language in a fully abstract way. That they have not yet reached that level of mental functioning is shown in their dependence on "sensory" thinking when describing the physical layout of their dwellings with the help of their bodily orientation ("turning left there is..." etc). To use Skantze's expression quoted earlier it can be said that these children are still creating mental representations of the environment. Just as the youngest children in the study the youngsters of 13 to 15 show "sensory" dependence but they show this dependence on a verbal level rather than on a behavioural level and they express their dwelling ideas in a coherent way, too advanced for the young ones.

Managing to express themselves truly verbally is an extraordinary psychological accomplishment by the children. This accomplishment is as was just said the result of a wholly new mode of conceptualization. The "first" time this happens, in the change from a preoperative to an operative mode of thinking, is like the creation of a new world by the child. The child discovers his mental powers and this discovery generates in him strong feelings of mastery. These feelings of mastery will stay on with him and be attached to the concrete operative mode as these feelings are mingled with his intellectual accomplishments in that mode. The verbal mastery, therefore, might be accompanied with the feeling of having for the first time given the physical world its "proper" names. And these very names will therefore have a particular quality to the child.

The task of writing an essay on how one would like to live is clearly pleasurable to the youngest children and the children of 13 to 15. The possibilities of being allowed to express wishfulfilling thoughts are fully taken advantage of by these children. However, to the oldest writers the task appears not to be equally inviting and uncomplicated. The teenagers knowing that it is their own thinking, not the environment, which gives them the positive feelings cannot as easily as younger children disregard the shortcomings of reality and of their own capacities. Also, another and different world is opening up to the teenagers and this is the social world. This is a world where they are being reminded of the fact that they are among a lot of other people. The



social consciousness among the essay writing teenagers is reflected in their essays in two ways; one is that they actually mention people more often in their essays than do younger children; the other is that they give evidence of commitment to society by mentioning social institutions like work places, salaries, education, communications. Discovering the social world might be a phenomenon that puts the emotional engagement in strictly physical aspects of the world into the background. This is an interpretation put forward by the psychoanalyst Searles (1960).

"Not only does the boy become a man and the girl become a woman, but each becomes more deeply human, and aware and accepting of his or her human status vis-a-vis the nonhuman environment, than had been true before. In this transitional period, he turns his greatest interest from the world of Nature, and other nonhuman things, to the world of his fellow human beings" (Searles, 1960, 89).

That it is possible to keep what can be called a projective attitude even during adulthood, though in a much more restricted sense than what is true for children, is shown in the emotionally motivated considerations of the physical environment made by the grown-ups in Werner's study. The grown ups' search for "living space" in cities can quite possibly be connected with the strong feelings of mastery and freedom which these people experienced as children. It is also possibly therefore that these people's love of their city is "physical" - rather than social.

## **5. The psychological meaning of outdoor space: a developmental interpretation.**

The implications of the change of the individual's important emotional investment - as pointed out by Searles - from the nonhuman world to the human world - have so far been little explored by environmental psychologists. In her effort to take into account emotional aspects of environmental experiences, Sebba has stressed the fact that sensorial experiences have a "pleasurable" quality to them (1991). She states that when the transition takes place from the child's reliance on sensory to his reliance on cognitive criteria there is a concomitant loss of pleasurable experiencing. The attitude towards the environment changes from being adaptive and sympathetic to becoming generally more critical and analytic. Sebba suggests that this means that "the child no longer creates a concept of the world from experience but rather receives it from others." Sebba indicates that the child's active attitude vis-à-vis the environment is changed into one - in a sensorial sense - less active.

The interpretation put forward by Sebba on why adults look back with longing to the sensorial, pre-cognitive way of experiencing the environment is their felt loss of the (projected) pleasurable qualities of such experiencing.

"The fact that sensory perception is measured according to pleasurable criteria and the fact that this is done through a sympathetic view of the world makes the loss of the ability to experience as a child a type of expulsion from Eden. This expulsion is not a punishment for stealing from the Tree of Knowledge, but is rather a direct result thereof" (Sebba, 1991, 415).

In her analysis of adults' environmental memories of their childhood Sebba noted their dominating perceptual qualities. She also noted that the way that the memories were reported was rather unstructured.

"These reports, as well as the difficulties in reporting, show that the experience related to perception of the environment is mostly unstructured, based not only on visual imagery but also on parallel internal feelings connected to the proprioceptive and vestibular systems and to the senses of touch, smell, and sound" (Sebba, 1991, 406).

To Sebba's observations another can be added from the above mentioned practice in Sweden of letting students of architecture, landscape architecture and psychology write environmental biographies. Memories from the writers' early childhood are described quite fragmentarily, giving the reader the impression that the writers have had difficulties in getting "hold" of these experiences. The verbally fragmentary character of their descriptions might be related to the fragmentary character of the essays by the youngest children in the study presented above on children's notions of dwelling.

In an effort to trace the characteristics of the natural environment which are unique in stimulating and attracting the attention of both children and grown ups, Sebba has found the following:

"1. The stimuli of the natural environment simultaneously assault the senses at an uncontrolled strength. 2. The natural environment is characterized by a continual change of stimuli (over time or across area) that are spread over a relatively large range. 3. Compared to the built-up environment, the external environment is characterized by instability, which requires alertness and attention. 4. The natural environment is one from which life springs and one which exerts forces that cause inanimate objects to move. 5. The shapes of the natural environment are usually soft and rounded, mostly ambiguous, and infinitely varied." (Sebba, 1991, 416-418)

Among these qualities one recognizes what in the above mentioned study by Frost and Strickland seemed so important in the appreciation by children of playground arrangements, that is variability of stimuli. That this and the other qualities mentioned by Sebba are so important when experiencing the environment - both to us as children and as adults - might have to do with the strong emotional loading that they carry and which to the adult person is not only a question of experiencing nice childhood memories but also - and more important - making previous modes of experiencing come alive. This means that the individual gets into contact with his own precognitive experiencing and thus his feelings. The emotional activation of previous modes of experiencing in the individual might be connected to general psychological mechanisms characteristic of creativity, which has been suggested by both Nordström and Sebba.

Summing up the results presented from different - Swedish as well as Israeli and American - studies makes it clear that our psychological dependence on the environment is complicated but could profitably be studied with theoretical models taking into account not only cognitive and rational aspects of our mental functioning but emotional aspects as well. It seems therefore to be a fruitful enterprise to combine environmental psychology with other psychologies. Incorporating environmental psychology into developmental psychology may help us see our dependence on the physical environment as well as make us aware of the fact that this dependence is experienced by us differently throughout the life cycle and that it is of a constantly changing or "dynamic" character, influenced by previous phases of our development and of our emotional investments of these.

## 6. Recent studies in Swedish environmental psychology

The following presentation of a few Swedish studies on the importance of outdoors in the experience of the built environment are examples of studies, which have received support from the Swedish National Council for Building Research and its previously mentioned special fund for research on "green open space in cities". In the bibliography below reference is made to a few more studies than are being presented here. As can be seen from the presentation these projects are closely knitted to planning issues.

### 6.1. Outdoor creativity

Creativity and gardening activities have been the themes investigated by a research group of one architect, one landscape architect and one ethnologist at the Technical Institute of Chalmers in Gothenburg. The group was headed by Jarlöv, the architect, and it made a series of studies on allotments and plots attached to ground-floor flats in modern housing areas. The aim of these studies has been two-fold - one has been to analyse historically the planning reasons for the absence in modern housing areas in Sweden of space to be cultivated as allotments and plots. The second aim has been to propose various models of how space can be transformed into allotments and plots for gardening with examples from abroad. The claim that the group makes is that such space is of great importance to dwellers as a means of expressing the dwellers' practical creativity. The group also claims that the accessibility of such space for ordinary renters is a question of justice as such accessibility is granted residents of villas and row-houses. However, the first claim has been the one which has been most heavily emphasized by the research group and which they have supported by research.

Of importance to the studies made by the group is the dissertation "Housing and Creativity" (Jarlöv, 1982), in which Jarlöv analysed the motives, attitudes as well as behaviour patterns of people with second homes like allotments, summer houses and vacation houses. One of the conclusions from Jarlöv's study was that:

"...many people set a higher value on the possibility to shape their own environment as they like, on fresh air, on bird song and green open space than on good facilities and well-equipped flats" (Jarlöv, 1982, 4).

This conclusion can be seen as a criticism of the accomplishments of the Swedish Welfare System, which in great hurry during the 60s and 70s, when the building of one-million new flats was on its program, neglected to take into consideration many qualitative aspects of dwelling. The subtitle of Jarlöv's study is "People's Need for Creative Activities - a Neglected Dimension in Urban Planning".

In a study by the ethnologist in the group, Bergquist, two interesting assumptions in Jarlöv's dissertation and in other studies by the group, are being discussed more deeply. One of them is the notion of time. The other is the question whether gardening as such is a social activity. Both of these questions relate to planning practices as well as to research issues.

With quotations from the in-depth interviews made in the study, Bergquist shows that to the forty people he interviewed the meaning of leisure was certainly that of relaxation but accomplished in activities chosen by the persons themselves and performed at a leisurely pace. While work was associated with clock-time, leisure activi-

ties were associated with natural rhythms. Gardening was experienced by Bergquist's interviewed persons as an activity putting them into a natural rhythm, giving them a feeling of harmony with themselves. The garden was seen by some people in Bergquist's study as "a concrete metaphor for the mystery of life and death" (Bergquist, 1989, 163). These results are well in line with studies made by the environmental psychologists Rachel and Stephen Kaplan on nature's capacity to give man "restorative experiences" (1989). Restorative experiences according to the Kaplans are the effect of involuntary attention, which is effortless in the respect that mental stimulation comes to us rather than is activated by our own efforts. Problem-solving and planning, demanding abstract thinking, on the other hand, are examples of directed attention. The modern man-made world often demands directed attention to such a degree that we experience mental fatigue (S. Kaplan, 1990). A way to recover from mental fatigue - used by many people - is to spend free time outdoors. In the previously mentioned study by Nordström, children younger than 16 years seemed not to have a historical or clock-wise sense of time. Young children's way of experiencing time - as natural processes embodying the life cycle - can be seen as an expression of their overall concrete conceptualization. To children 16 and older, capable of abstract thinking, clock-time was an important dimension when they described how to plan their lives and how they valued their experiences.

The question whether gardening is a social activity is receiving quite a lot of attention in Bergquist's study. The reason for this is the fact that one argument for making allotments and plots for gardening has been to improve the social climate in run-down housing areas from the 60 and 70s. Such areas have been known for their bad social life, which in turn has made renters desert these areas, leaving "empty" - unrented - flats behind. In an effort to make the areas attractive again, the state and the non-profitable housing corporations have put a lot of money into various kinds of physical improvements, such as supplying allotments and garden plots. What Bergquist finds, however, is that gardening as such is not a social but rather a private activity. But this does not mean that it is not socially important.

"The social life on the allotments or in the gardens attached to ground-floor flats is very important. The neighbours on the allotment might be the only company that some elderly, unemployed or single people have. The actual work on one's own allotment is, however, a private activity. It is somewhat of a paradox that the social life starts out from and is built around what is essentially a one-person activity. According to the interviews, people usually meet each other outdoors, very seldom in each other's homes. The allotment or garden represents both a natural meeting ground and a private place to be in" (Bergquist, 1989, 163-4).

This finding is important in at least two ways. First of all, it points out, what has also been found in the studies mentioned above, that experiences in outdoor space seem to have an unsocial quality. Above, Werner described how city people seemed to be in a "dialogue" with their physical environment and that the physical environment - in Werner's case to a large degree man-made - took on almost a personal character. It seemed that involving another person in this relationship would be almost impossible; another thing being the fact that one can relate to others about this particularly close personal rapport with the physical environment.

Secondly, Bergquist's finding is important because it articulates the realization that there is not always - especially not within the field of environmental psychology -

a direct connection between planning measures and planning results but rather that there are - and important enough - indirect results. As was said earlier, this fact appears to be accepted not only by researchers (who are now less keen on setting up "cause and effect" models for the studies) but increasingly so also by planners. Satisfying "individual" needs may thus very well have good social effects and lead to a good social climate.

## 6.2. *Everyday outdoor activities among young children and retired people*

Another research group, consisting of Berglund, landscape architect, and Jergeby, sociologist, has concentrated on describing activity patterns of certain groups of people in outdoor space in housing areas and near-by parks in Stockholm. The groups chosen have been pre-school children and their mothers, school children of ages 8 and 11, and retired people. The choice of these groups has been made because in comparison to other groups of people, they spend a considerable time outdoors in the neighbourhood. The practical aim of the research has been to demonstrate to planners how outdoor space is used by these groups and detailed physical characterizations are made of the different outdoor spaces. Two housing areas in Stockholm, Aspudden and Gröndal, have been chosen because they have relatively limited outdoor space and because they have been subject to densification. Both housing areas started to be built during the 1910s, the most intense period of building being from the 1930s to the 1950s. In the 1970s densification started in the areas.

Berglund and Jergeby found that mothers put a high priority on spending a lot of time outdoors with their children and that the time spent outdoors was part of the schedule of everyday activities (Berglund & Jergeby, 1985 & 1989). The use of outdoor space as motivated by the mothers was to give their children fresh air, exercise, play opportunities alone and with other children. The behaviour of the mothers as well as of their children can psychologically be interpreted as an expression of the mothers' desire to let their children get along and manage on their own and the children's own wish to do so. The activities of the mothers were almost exclusively motivated by the needs of their children - younger children demanding closer physical distance and a keener eye than older children. The mothers therefore chose places in the neighbourhood parks and play areas they wanted to visit with their children according to how they viewed the needs and abilities of their children. Attending to their children visually, the mothers tried out appropriate physical distances to their children, checking how they were getting along. The mothers were permitting and even encouraging their children to get away on their own and thereby supporting a behaviour which in older children is managed by themselves.

Also observing school children, of ages 8 and 11, Berglund and Jergeby noticed that the range of activities of the 8 year olds was limited to the close neighbourhood, while the range of the 11 years old stretched well outside of the housing areas. That such ranges are stretched even farther, all the way to town centres by teenagers, was pointed out in the above mentioned study by Lieberg (1992). From a developmental psychological perspective one can say that this particular behaviour can be said to play an important role in the individuation process of the child. That the physical environment is crucial to the individuation process is something which needs to be more attended to within developmental psychology than what has been done so far. The merit of the work of Berglund and Jergeby as well as that of Lieberg is that it

shows - at times in great detail - what physical spaces are used in this process and how they are used.

Berglund and Jergeby claim that the social context is decisive for what activities are chosen by the children and their mothers. They don't describe the theoretical implications of the social context but give supporting examples of behaviour in social contexts. They say for instance that mothers will choose to go to neighbourhood parks when on their own with their children but will go to more distant and less "safe" open spaces when all the family is together on week-ends and holidays. The family making an excursion into the woods on the week-end is something very different from the mother spending the morning with a small child in a neighbourhood park in the city alone or with other mothers in a similar situation.

Berglund and Jergeby have also studied the behaviour of retired people in parks and neighbourhood green open space in Aspudden and Gröndal (Berglund & Jergeby, 1988 & 1989). What is clear from this study is that retired people, of 65 and older, find walking a particularly important outdoor activity. Optimal walk-ways offer nice views of the landscape and closeness to other people. Though not desiring a direct contact with other people - with the exception of old friends or family - elderly people find it reassuring to be close to others when outdoors. They feel that they might need the help of others and they are therefore eager not to be in lonely spots when outdoors. They are also interested in following what is happening among others by observing them - children playing for instance - and seem to be content with a kind of detached participation. Another cherished "activity" by retired people is sitting on the balcony or by the windows indoors looking outside. Again, this is a kind of detached participation. Except for observing the social life of their neighbourhood, they enjoy observing seasonal changes in the trees and natural elements of their neighbourhood.

Interpreting the behaviour of the elderly people from a developmental psychology perspective, one can say that what the elderly seem to be occupied with is a kind of withdrawal from the world - and especially the social world. They do so by keeping a distant - predominantly visual - contact with the surrounding environment. Just like the teenagers, described by Lieberg, but for other reasons, the elderly keep themselves to the "edges" of social life - preferring walk-ways and streets to enclosed spaces. And, it is the sensorial aspects of the physical environment which becomes dominating in the experiences of the elderly. For new purposes of adaptation, previous modes of experiencing come to the fore.

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