CHILDREN'S INFORMAL PLAY SPACES
IN
THE URBAN SETTING

A CASE STUDY OF
THREE RESIDENTIAL NEIGHBORHOODS IN MANHATTAN, KANSAS.

by

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A THESIS

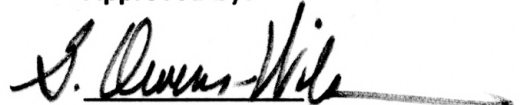submitted in partial fulfillment of the

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A B S T R A C T

"The role of the environment (social, cultural and physical) is evident: it either conditions the child into or out of activities or provides for a variety of alternative experiences".[1]

Play is an essential activity for children. It is a natural occupation of childhood where children experience and learn from their interactions and observations of the environment around which they live.

Children are as important users of the housing environment as adults. They spend more time near their dwelling than that at playgrounds which is why their needs and requirements for play need to be considered. Needs do not only mean providing playgrounds, day care centers or open grounds, but it also means the right environment where children can do what they want to do within the unplanned, informal play spaces.

This research hypothesizes that children's play activities within a residential setting depends on the types of spaces and its environment. A change in environment may give rise to different play opportunities, play patterns and play activities within the spaces children tend to play in.

An effort has been made to understand the importance of play and environment in child development through theories of child psychologists and researchers. The study attempts to observe children between 3 to 11 years of age to understand the role of the environment on children's play within unplanned spaces of three selected residential neighborhoods of Manhattan, Kansas. The major differences between the neighborhoods is the planning and street layouts. Observations of the physical characteristics and play activities within the categorized informal spaces of these residential neighborhoods are made to identify the factors which may affect play. The comparisons and analysis of the observations conclude as the findings of the research.

The study is descriptive in nature. The conclusions made attempt to restate the findings, briefly discuss some general problems observed and provide design suggestions. This study may form a meaningful resource for the design of new and existing neighborhoods in order to provide an environment with better play opportunities. Suggestions made for further studies and research alternatives may be useful for interested individuals.

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[1] Pollowy, Anne-Marie, "The Urban Nest", 1977, p.3.

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Source:- All illustrations (photographs) are photographed by the author.

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Source:- Telephone directory, Manhattan, Kansas, 1993.

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Source:- All figures are drawn by the author.

Know what it is to be a child?

It is to believe in love, to believe in belief,

It is to turn Pumpkins into coaches,

and mice into horses, lowness into loftiness

and nothing into everything.

--Shelly

Source:-unknown

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<u>INTRODUCTION</u>

1.1 Children's Play in Residential Settings

1.2 Problem Statement and Significance

1.3 Focus and Scope of the Study

1.4 The Audience

1.5 Research Design

1.1 CHILDREN'S PLAY IN RESIDENTIAL SETTINGS

Children have an amazing capacity to perform various activities wherever they may be. They talk, walk, meet, play together and mess around in spaces within their neighborhoods. They create a society of their own and perhaps being outdoors is the place for it. Play happens in all types of spaces, not just the playgrounds. They play within the 'unplanned' spaces where many other activities take place. Recollecting childhood memories may help understand these types of places. Some include inside the home, in the yards, in gardens, streets, construction sites and many others. Being important users of the housing environment, they need to find their own places to play in. They spend a lot of time in and around their homes, on the sidewalks or at the door steps within their immediate neighborhoods. They spend time accompanying their mothers on errands to the market. When we add up all the time a child spends and plays outside and within their neighborhood in the unplanned play spaces it is usually much more than the time they spend in planned play spaces such as playgrounds. They seldom go to playgrounds unless they are a little older (8 years and above) or parents accompany them. It is thus necessary to know what children do, how they play and where they tend to play. Moreover, play is a way of learning, a way of preparing oneself for the future which makes it even more important to find out whether the environment they live and play in provides them with good and fruitful play opportunities and experiences for a healthy childhood.

Play activities depend on the type of environment the child plays in. In order to provide children with a space to play in, playgrounds should not always be the only solution. Equal importance must be given to the design of residential neighborhoods with respect to children's play within the unplanned spaces. Many studies today have been made to explore other, possibly more relevant, facts of children's daily life such as, their notion of privacy, the distance they travel from home and the effect of the physical environment on children's ability to maneuver in their neighborhood. The concept of designing a residential environment totally functional to children's requirements does not seem to be feasible even if it were desirable. Just considering their requirements along with the others would be appreciated the way Christopher Alexander explored the implications of children's socialization and used it as one of the main arguments for the design of his 'human city'.

1.2 PROBLEM STATEMENT AND SIGNIFICANCE

Many play areas designed and planned for the specific activity of play sometimes fail to serve the purpose for which they had been planned. This may be due to several reasons. Many large cities like New York have playgrounds which remain deserted. The maintenance-free playgrounds become monotonous for play activities. While on the other hand one finds that children love to be in areas which have not been planned for them - areas where not only children's activities take place but where many other adult activities are found. Popular places for play will depend on the locality of the space, the traffic, the built form and many other such factors. It is hence essential to understand the needs of children who wish to play, explore, and enjoy themselves in their surroundings. If the relationship between the children and their urban environment is explored, then the link between the city and the child can be fruitful for both the child and the city. Architects, designers and planners can lend a helping hand in accomplishing this.

In order to improve play opportunities through the provision of appropriate environments, one must understand play itself, its importance for child development, the types of play, play spaces, materials enjoyed by children and factors that influence their play - which may be many. The types of spaces available within the residential areas facilitate certain play activities. Though these spaces may have never been designed with the intention of incorporating play for children, play activities do take place. Children are forever exploring the environment around them and hence an understanding of their needs, how and where they play in the unplanned informal spaces, may also help to design or improve a neighborhood with spaces that could be more playable. Children find different types of spaces in different settings and their play in play spaces could be an outcome of the way in which the surroundings have been developed.

This research attempts such a study of children's play activities in spaces within the residential environments of Manhattan, Kansas. The main emphasis of the study is to understand whether different environments give rise to different play activities and patterns, and also to understand the types of residential spaces in which children love to play. The focus, scope and research design along with the observation technique adapted for the study has been described below.

1.3 FOCUS AND SCOPE OF THE STUDY

The study is an exploratory description and observational analysis of the spatial use and behavior of children living in a residential environment. It was focused only on the informal play spaces within the selected areas of Manhattan, Kansas. Concerned with the physical characteristics and environment of each neighborhood, the study attempts to understand how it affects children's play within the informal play spaces such as streets, frontyards, sidewalks, etc. It's objective is also to understand whether a difference in the planning of neighborhoods and physical spaces gives rise to different kinds of play activities. The spaces identified were a variety of informal unplanned, public and semi-public outdoor spaces where children tend to play. These spaces have been listed on page 8. The research involves observations of play activities of children within the selected areas belonging to an age group of 3 to 11 years. This age group was selected after a brief review of Jean Piaget's book, Play, Dreams and Imitations in Childhood and Anne-Marie Pollowy's book, The Urban Nest.

It must be noted here that in the document many times children have been referred with a he/she and he/her tense in order to describe certain issues in a particular manner. The author does not wish to pass any sexist comments.

The major objectives are:

- To understand whether a change in environment could give rise to different play activities.

- To identify patterns of spatial use among children within different environments playing within the informal spaces.

- To seek factors which influenced those patterns and spaces.

1.4 THE AUDIENCE

No significant research on children's unplanned play spaces for Manhattan, Kansas has been done. This study may form a valuable resource for those interested in pursuing further research in this direction. In addition, it may also help designers and planners who wish to understand and incorporate children's needs for play spaces into the designing or redeveloping of neighborhoods.

1.5 RESEARCH DESIGN

The study has been divided into several stages as described below:

Stage 1 - Literature Review

The literature review helps understand the basic issues of child behavior and their play.

What is play?

Why do children play?

Where do children tend to play?

What environment and spaces do they like to play in?

These are some questions whose answers were understood through the ideas of psychologists like Jean Piaget, researchers like Anne-Marie Pollowy and designers like Richard Dattner. A brief outline of their work is described. It should be noted here that as suggested by a committee member, Dr. Carolyn Norris-Baker, Roger Hart's book, <u>Children's experience of place</u>, was not available when required and thus has not been referred to for the study.

1. Piaget, Jean. <u>Play, Dreams and Imitations in Childhood.</u>

Piaget's theory of child play is related to the growth and development of children at each stage of life. He describes the different stages of the growth of a child right from its infancy to adolescence. The environment a child is brought up in influences is ideas and it is the environment through which the child learns about the world. He explains how the child's world is full of play at every step. There are different types of play and different influences of the environment on the development of a child thus making it important for elders to provide children with the best of opportunities. His book emphasizes on how a child sees, dreams and imitates the world around him. His book is theoretical where he has proved his theories through experiments performed by himself. It covers a broad range of issues important for every educator to understand about child development.

2. Pollowy, Anne-Marie, <u>The Urban Nest.</u>

Anne-Marie Pollowy is an architect specializing in environmental planning. In this book, she explores what children require from their environment and tries to see if it could be modified to help those needs. Pointing to areas of neglect, as she states- inadequate research into daily

life with children, insufficient data on child spaces- the author conducts a vigorous investigation into them. She examines the young child's (0-11 years) development as it relates to the spatial environment, and the child's use of the residential milieu, from house or apartment to street to planned play spaces. She establishes the importance of this spatial environment for the development of children. Her research mainly deals with the living environments of Canada.

Anne-Marie Pollowy also looks at the child's play as important for spontaneous learning experiences, social interactions and exchange of values. In the later section of her book, she briefly provides the readers with guidelines which provide suggestions for playgrounds, new designs and simple improvements in existing environments.

3. Dattner, Richard, Designing for Play.

In his book, Dattner discusses some of his work on the designing of adventure playgrounds. But the main focus of the book is on his ideals of rich play, the philosophy, the function and opportunities for play. He defines play as the opposite of work. Dattner portrays this with excellent examples of play as an expression of human freedom and children as creative designers. He also explains, though very briefly, Piaget's theory of child play and development. Through his work he has observed and studied children playing in different spaces with different materials. Richard Dattner's work aims towards using the information for designing better play grounds and the best adventure playgrounds.

Other literature and articles read, as listed in the bibliography, also discuss similar issues of play and environment. But most of them relate these issues to the designing of play grounds - planned play spaces, unlike the focus of the study. The information gathered from the reviews is thus primarily used for chapters two, three and four.

Stage 2 - Site visits and Observations

Three residential neighborhoods within Manhattan, Kansas were selected after an initial observation study. The intention behind this pilot observation was to identify three neighborhoods with different environments suitable for the research. In addition, the pilot observation helped to locate the areas within the neighborhoods where children were found living and thus playing. This decision was based on the presence of toys, play equipments

around dwellings and the children themselves. After this initial observation the three neighborhoods selected were:

1. Residential areas on a grid iron pattern - Leavenworth Street and its adjoining areas. (Central region).

2. Residential area with cul-de-sacs - Musil Drive and its connecting streets. (Western region).

3. Town houses and housing complexes - Prairie Glen (Eastern region).

Each neighborhood has been described in detail in chapter five.

An effort was made to maintain the same density, income level and traffic for all three neighborhoods. The informal spaces observed for each neighborhood has been be classified as the following:

Sidewalks

Streets

Frontyards

Backyards

Back alleys

Sideyards

Each of the above space has been studied in terms of its physical characteristics and play activities. The play activities have been further classified as most frequent and less frequent activities. An example of the classification is shown here:

NEIGHBORHOOD

Playspace

Physical characteristics   Play Activities

Most frequent   Less frequent

winter   winter

Spring   Spring
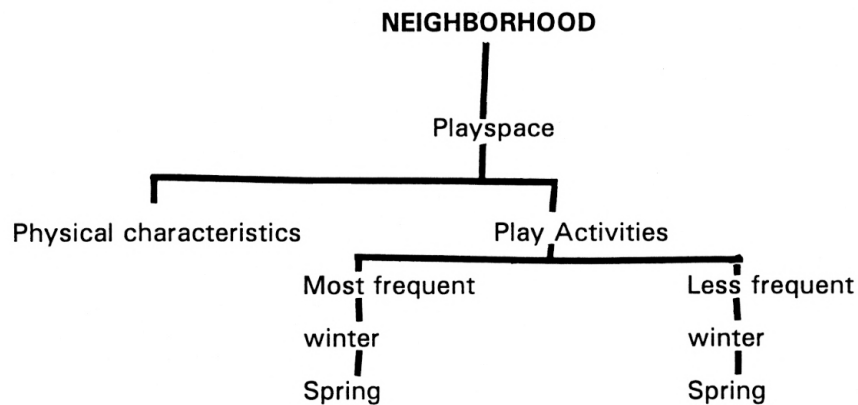
Observation technique

In order to achieve the objectives of the study and observe children as they play naturally, the technique for observation used was unobtrusive. Unfortunately, the initial time period selected for the observational study, November 1992 to January 1993, was not appropriate due to unfavorable weather conditions. Enough data to conduct the research was not available and thus the study was extended upto early May 1993 which proved to be rich in experience and good for the research.

To eliminate the possible influence of external factors, such as the time of the day, weather and temperature on play of children and types of activities observed, observations were made systematically on the same day for each neighborhood. Visits were made for approximately 15-20 minutes or sometimes even more to each selected residential area in a rotating order so that every site would fall into different time categories each day. Observations were always conducted during the after school hours, beginning at four in the evenings on weekdays, weekends and holidays. From February 1993 to early May 1993 approximately seventeen site visits were made depending on warm weather conditions(65 degrees F and above).

Observations were made walking around the neighborhood after driving to the destination. While walking, photographs were taken and observations were recorded in the form of written notes and on the observation sheets prepared (see Appendix A, sample sheets of observations recorded are in Appendix B). At times the observer sat down to make sketches. All children present at any observation point were noted whether they were playing or not. The data also included children walking home from school. The space, the physical nature of the space in which the activity took place was recorded along with the time and day. Activities performed were noted according to the spaces, types of play, the play equipments used and so on. The effects of traffic, weather and most of all the physical structure and elements of the environment on the play activities were also observed.

Once the site visits concluded the observations recorded on the data sheets were compiled together and used to study each neighborhood in terms of their physical characteristics and play activities which are classified as shown in the example on page 7. Finally the strengths and weaknesses of the environment of each neighborhood in relation to children's play were evaluated. This section of the study forms the fifth chapter of the thesis.

Stage 3 - Comparison and Analysis of Observations

This stage consists of comparing the data gathered between similar spaces of each neighborhood. This comparison is done in order to understand the differences in play activities occurring within similar spaces in different neighborhoods and factors that influence play. After the analysis, findings were listed and briefly described. The findings put forward hope to provide useful information for future designing.

Stage 4 - Conclusions

The final stage of the research consists of conclusions made. Some suggestions in form of recommendations to provide better play opportunities, for designing or for simple improvements in existing environments have been included. The study also suggests alternative directions for a similar study as well as other possibilities for further research in a similar direction. All the stages of the study have been put together in the form of this written document hoping it could be a useful reference material for architects, designers and planners concerned with providing a healthy environment for children to play in.

The thesis consists of seven chapters. The second and third chapter deals with the background study of understanding play, its importance for child development and the types of play. Chapter four describes the relationship of a child to the urban setting and how children explore the city by playing in the unplanned play spaces. The fifth chapter contains the case studies, observations and analysis. In chapter six, the observations of the three neighborhoods are compared and the findings of the research are listed. The last chapter concludes the study with the conclusions made along with some comments and suggestions of how designers and planners could make use of the conclusions derived as useful.

Why should you ask for a meaning to play

When it is what I think and do every day,

"To play" is to act what my nature desires

"To work" is to do what my faculties tires.

-- Caroline Chester, Age 14, 1815.

as quoted by Dargan, Amanda in City play, p.28.

2

PLAY - AN UNDERSTANDING

2.1 Play is Natural

2.2 Defining Play

2.3 Why Children Play?

2.4 Child and Play

2.1 PLAY IS NATURAL

The need to play is a universal phenomenon. For children, play is an essential activity and has been so discovered since the dawn of civilization. The child starts to play literally with his first breath.

"Long before he is even aware of his toys, he is his own plaything. That is to say, the first step we all take towards growing up is to learn about ourselves".[2]

In the course of history of mankind, recreation and play have had an important role in providing renewal of spirit and zest in the life of humans. Early philosophers like Aristotle, Plato, and educators like Rousseau, Frobel, Comenicus have all in their own way stressed the importance of play as a natural occupation of childhood and an instrument for learning.

Montessori describes the child at play as being in complete harmony with the basic law of endless activity, which manifests itself in every aspect of nature. She further says,

"...when a child plays, it resembles the never ending activity of the flowing stream or the growing tree.....".[3]

Considering the universal appreciation of the importance of play, it seems strange that the child's need to play still has to be justified. His need to move and play are many times questioned by those adults who seem to believe that learning or development is a transaction which happens on its own and may have no relation, whatsoever with play.

It is essential to understand the importance of play for children and for allowing them to play the way they want to. This chapter attempts to understand what play is, how educators have defined it, why children play and their relationship with play. The main emphasis of the thesis is towards the study of informal play spaces, spaces where children tend to play, the play activities in which they involve themselves and how their environment and residential layouts affect their play activities. It will be interesting to see how children adjust themselves to whatever kind of environment, situation or climate -- just to play !

2.2 DEFINING PLAY

Many have defined play in their own way. But they all narrow down to the same meaning. It is a joyful activity giving happiness mentally as well as physically. It is doing what

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[2] Piaget, Jean. "Play, Dreams and Imitation in Childhood", 1962, p.27.

[3] Montessori, as quoted by Singh, Agya Jit in "Play and Child Development", NIPCCD, 1984, p.19.

you what to do whenever you want to do it.

"Play is an activity and a creative tendency marked by spontaneity, freedom and pleasure as its characteristic features".[4]

"Play is a joyful, spontaneous and a creative activity in which man finds fullest expression".[5]

Playing is something which is essential and natural that can give pleasure and fun. To a child, play is the same as life. Richard Dattner has defined play in an interesting way. He compares play as the opposite of work. The difference between work and play is the reason for which the activity was performed. One is usually forced to work, but play is a voluntary undertaking.

Illus.1 Play is doing what you want
to do whenever you want to do it.
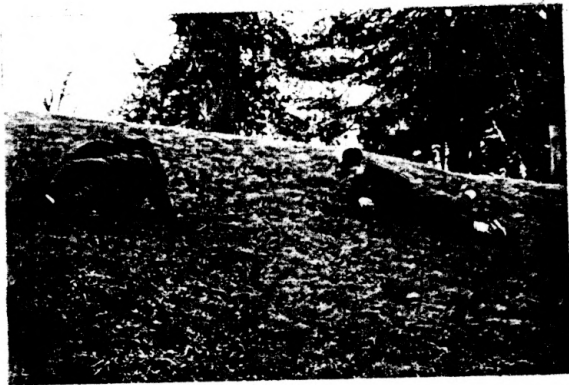
Illus.2 The process of play is important

"...working is a response to external pressures while playing is a manifestation of internal needs and wishes".[6]

"It is impossible to 'do' play as you 'do' work".[7]

The process of playing is more enjoyable and important than the goal of the activity. Imagine the happiness children get while running around, while playing in sand, while going

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[4] Dattner, Richard. Design for Play, 1974, p.11.

[5] Rose, as quoted by Singh, Agya Jit in Play and Child Development, NIPCCD, 1984, p.41.

[6] Dattner, Richard. Design for Play, 1974, p.7.

[7] Ibid, p.13.

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shopping. They enjoy the process of doing this more than the result of catching a person, or the sand castle they built or the things they bought. It is in play, that our wishes for certain kind of life can be satisfied. In short, it can be said that play is the expression of human freedom (illus.4)- being the most spiritual activity of man and at the same time - being the inner hidden natural life of man which gives joy, freedom and contentment.

2.3 WHY CHILDREN PLAY?

Science says, that the human body needs some form of play as a means of revitalization. One refreshes his body by playing after long hours of work. A child too, manifests and satisfies himself through his play activities some of his repressed feeling and desires. By playing some children compensate for what they are not getting in actual life. It is play which lessens the burden of their pent up feelings. Moreover, children love to explore, discover, invent an have adventures (illus.3). Psychologists and sociologists have put forward their views. According to Karl Groos,

" .. the child prepares himself through playing for the activities which he has to perform when he becomes a young man".[8]

These view points may not be complete or sufficient and it is agreed to say that children play because it is - just natural. It is also known that playing is an activity which helps the child to achieve an all round development and for which one must encourage children to play by giving them a better environment 'to grow in'.

2.4 CHILD AND PLAY (age group - 3 to 11 yrs)

Considering children from an age group of 3 to 11 years, after a review of Jean Piaget's and Richard Dattner's work, any activity they spontaneously engage in is termed as play. It is their response to the world around them. A child acts out what he observes and learns about himself and the world. As a child plays, he builds up a storehouse of meanings which are essential for an intellectual growth.

A child can never be taught how to play. He himself will decide where when and how. He who wants someone to play with will always make adjustments according to his playmates

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[8] Groos, Karl as quoted by Singh, Agya Jit in "Play and Child Development", NIPCCD, 1984,   p.43.

Illus.3 They love to explore, discover and have adventures
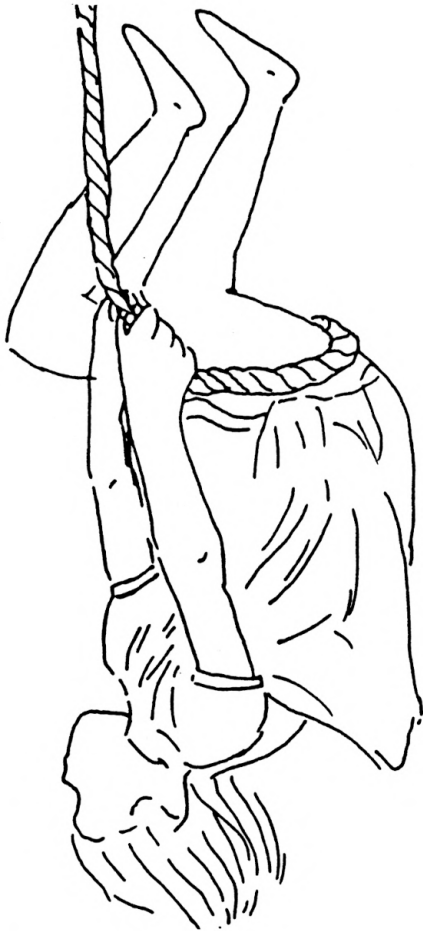
Illus.4 Play is the expression of human activity

Illus.5 Children play because it is natural freedom.

wishes. He invents the rules and cancels them if he wishes. If his play involves other children and they resist a change, then he can decide he no longer wishes to play. This explains how children enjoy their freedom to play. They also enjoy being on their own. Beginning from the age of three, slowly and gradually, they enjoy almost everything around them whether it's safe or not. From the studies described in chapter four it will be discussed how they seem to be playing with everything everywhere.

Alexander Herzen had once questioned the very purpose of childhood.

"Is it simply the purpose of the child to grow because it does grow up? No, the purpose of the child is to play, to enjoy, to be a child, because if we follow any other line of reasoning then the purpose of all life is death".[9]

Children at all stages of their development seem to be like imitative animals. But over and above all this, they build and demolish, build again, they dig, explore and climb. They could participate as well as be happy with any pleasant sight. Not much to the adult's knowledge, children are forever participating in the cultural tradition of their own environment within their own communities, which is play for them. They may love to keep secrets. Whether they actually do or do not is not the question. Keeping a secret of some kind may give immense joy just as finding special hiding places separate from the rest of the world while they are at play.

Play for children may not only mean to be through movement, action and noise. It can just as well consist of day dreams, lying on the grass or visualizing animals in the shapes of the clouds (illus.6). Trees, animals, birds, people, buildings, cars, can all be a part of a child's imagination. Anything around him, including the bees, butterflies and all nature can satisfy his playful moments. He wonders, imagines and thinks. They are on the search of 'special places' for 'special things' (illus.7). We, as adults may in no way experience what the child experiences. Just as Yi-Fi-Tuan says,

"The child's world is so full of miracles that the word miracle can have no precise meaning for him".[10]

All children may play differently but they tend to have more or less similar concepts. All over the world, children are found playing. Their way of playing is different because their environments differ, their cultures and lifestyles differ, and the resources differ. While on the other hand, there are some children who spend some of their time working and earning a living

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[9] Herzen, Alexander, as quoted by Ward, Colin in "The Child in the City", 1978, p.210.

[10] Yi-Fu-Tuan, as quoted by Ward, Colin in "The Child in the City", 1978, p.23.

Illus.6 Play can consist of day dreams or visualizing animals in the shapes of clouds.

Illus.7 They are in search of 'special places' for 'special things'.

as newspaper boys, working at gas stations, baby sitting etc. This may be found in the case of poor families or the homeless. Colin Ward has observed a similar aspect. He explains that,

"..apart from pre-school children, on a working day; the only others who are visible on the roads in a modern city are the children of the poor and they are not playing. They earn a living as shoe shiners, running errands and begging ....sometimes up to 18 hours a day!".[11]

In short, one may say that children must play because their inner self wants to and they play to satisfy their inner urges. A child plays, and as he plays he experiences and learns about all the things he has interacted with. They play with other children, roam around, run about, find their special play spaces and enjoy being a child. In order to design spaces for children, it is for the adults to understand children as children, understand their curiosities, their imaginations and experiences and try to design or improve spaces which delight and intrigue a child.

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[11] Ward, Colin. "The Child in the City",1978, p.59.

The child's toys and the old man's reasons

are the fruits of the two seasons.

--William Blake

as quoted by Dattner, Richard in Design for play, p.33.

3

PLAY AND DEVELOPMENT

The following study is oriented towards the importance of play in child's development. The main emphasis is laid on children's use of the physical environment. This study has been organized under various headings representing various lines of psychological studies and refers only to the major aspects of development that are required for this thesis. Other developments do occur besides the ones discussed but have not been referred to as they do not relate to the main research of this study. It should be noted that this developmental study has been carried out only for understanding the child's behavior as he plays, the level of creativeness found and how the residential environment where a child lives in, can affect play. The categorization of the developmental study and the types of play are based on Jean Piaget's theory of child development.[12]

3.1 IMPORTANCE OF PLAY FOR CHILD DEVELOPMENT

The most important reason for children to play is their development. Children learn as they play, hence it is the way they play and think which shapes their minds as they grow into adults.

"Train up a child in the way he should go and when he is old he will not depart from it".[13]

In the earlier times, children were allowed to play and were considered children

Illus.8 They are curious information seeking individuals interacting with the environment.

only till they were old enough to help the family earn a living. But times have changed now. Children are recognized as children. Importance is given to their education and development.

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[12] Piaget, Jean, "Play, Dreams and Imitations in Childhood", 1962.

[13] Proverbs 22:6, as quoted by Dattner, Richard in "Design for Play", 1974, p.17.

Philosophical discussions have enhanced the importance of childhood. A British philosopher, John Locke, put forward that,

"...at birth a child's mind is as blank as a slate to be shaped and formed by environmental influences".[14]

Most of us are aware of the fact that a child is an active, curious, information seeking individual, interacting with the environment (illus.8). One can understand this from the amount of questions he asks adults in order to understand and make sense of the confusion created in his mind. The child actively selects, experiences, tests and refines his experiences according to their own maturational level. Whatever may be the case, whether the child is active or passive - the role of play and influence of the environment on the development of a child may be evident. In order to understand the behavior and development of a young child, one has to be aware of the different experiences through which he passes during his play activities. Playing promotes a child's physical, social and intellectual development. He needs to grow in every way to achieve his full potential.

"This is what is called the development of the whole child".[15]

3.1.1 Physical growth and activity development

Physical development is involved with the co-ordination of muscles and movement of the body. Playing is the main activity through which such physical activity can be performed voluntarily. Children enjoy swimming, sliding, climbing, jumping and such other playful activities. These are physical exercises. Right from infancy, the child is playing and kicking his legs about. When he becomes mobile, he tests his strength by climbing, lifting etc. A child digs, pulls, pushes, carries and hangs as soon as he learns to control his arms and legs. This may begin around the age of three to four (pre-school stage, see page 27).

As a child passes his earlier pre-school stage (3-5 years), he begins to gain more control over his body and the motor development (connected with the muscles designed to control the movements) takes place. Thus they begin to understand how to handle objects such as scissors, pencils, etc. The young child is usually interested in play in which he uses his hands and fingers. Activities involved with folding, cutting, tearing, molding, etc. promote their

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[14] Locke, John, as quoted by Pollowy, Anne-Marie in "The Urban Nest", 1971, p.2.

[15] Piaget, Jean, "Play, Dreams and Imitation in Childhood", p.45.

development. Once a paper and scissor is given to the child he may become fascinated by the wonderful way paper is cut with an object called scissors. Children begin to master more complex skills in their middle childhood stage (6 to 12 years, see page 23). They use different play materials and objects like wood, tools, ropes etc and their play becomes more exerting with exercises such as cycling or skating.

3.1.2 Social and Personal development

Children spend much of their time and effort in learning about their social environment. They learn to establish relationships with family members and with others outside. One can say that play has the potential for helping human beings to have better relations in the society. Play, not only with children but even with adults has become a socializing agent. Socialization for a child begins at home by playing with the mother and those with whom his major relationships lie. Their social development is promoted by playing with other children as well. Researchers like Pollowy and Piaget have found out that until the age of four, children are so involved with themselves that they do not notice the activities of other children but they do enjoy the presence of them though with little interaction. This is 'parallel play' and is the first sign of 'school play'.

But as the child's world expands, he begins to include many more people, more situations and activities. He gathers more experience with the society, which may be included into his play. When the child observes the way in which his parents greet a friend or the conversations that take place, he adopts the way elders socialize and tries to do the same with his playmates. This is his response to the society to take in what he experiences, to digest and to reproduce his observations.

A child becomes free to be friends, enemies, a leader, or a follower. Though quarrels amongst children take place they never last very long. They try to understand one another and look at the problem from their point of view. The social life they encounter helps them to recognize feelings and experience different situations. Learning to adjust, sympathize, share etc. makes social play a very important factor. Without group play socialization would be minimum which could make a child selfish, introverted and egoistic. Dattner's studies have shown the differences by observing a child brought up where he would engaged into group play and another child engaged more in solitary play. Childhood is a time for freedom and play

and becoming an adult means exchanging this freedom for responsibility and work.

3.1.3 Intellectual development

Intellectual development involves concept formation as well as an awareness of a child's environment gathered through observations, experiences, explorations and questioning. During his play activities he learns not only body skills but also develops mental skills. He learns to think and express himself in the language of his environment. Children after the pre-school age enjoy playing with puzzles, jigsaw games etc. Intellectual development could take place

1. When something has aroused a child's attention and causes him to ask

   questions i.e. his inner urge to get an explanation to satisfy his curiosity.

2. When a child actively explores and finds out about things around him and

   then discusses his feelings with others.

According to Piaget's studies, intelligence is a kind of an adaption which consists of continuous creative interactions between the organism and the environment. Neither of the two, environment nor organism, can exist alone. The organism experiences, acts and perceives its effect on the environment, thus adjusting himself to live better in the environment. The early pre-schoolers (3-4 years) engage themselves with 'practice play' - a repetition of action and delight in being the cause of the event. This is like a child who enjoys to climb upon the bed and jump down - repeating and enjoying this action. He mentally begins to understand and control his environment. The second half of pre-schoolers (4-5 years, see page 23), begin to develop an ability to learn symbols and learn language. As they grow and enter their middle childhood (6-11 years), their mental powers and abilities increase. They start to think and organize their experiences into logical concepts to learn better with their own experiences. The course of mental development of a child will thus show that, effective mental development takes place if children are provided with a variety of rich and concrete experiences and activities for play.

3.1.4 Cognitive development

Piaget's description of the sequence of cognitive development and study of play has emphasized that cognitive development is achieved through intense interaction (play) with the environment. This constant interaction with the environment facilitates the child's

understanding. As children handle more objects, touch them or even break them, they attain the basic concept of size, shape, color and material. Playing with clay, sand and mud gives an opportunity to explore the changes taking place by molding them into forms. Many parents often prohibit their children from playing with sand and mud and do not realize that they may be depriving them of a major educational experience with good play opportunities from which they learn to observe and experience - a foundation for higher level of thinking.

3.1.5 Aesthetic development

Aesthetic sensitivity is involved with the appreciation of beauty, sight, sound and touch and thus also the development of senses through creative activities. Creative experiences come through movement, action and play. It is with movement that a child would jump with joy or crouch in fear. These patterns of movement are natural and untaught. They could be developed through play to promote ideas of space and material. It has already been seen earlier in this chapter that for any kind of development may it be physical, social or intellectual, freedom and opportunities to do so in the right surroundings is required.

3.2 TYPES OF PLAY

Play types, according to Piaget's theory, has been divided into four developmental stages:

1) First half of Pre-school stage (2-3 years):

This period is when the Sensory-Motor Play occurs. A child explores and experiences his near environment.

2) Second half of Pre-school stage (4-5 years):

A period for productive and constructional play. A child uses manageable play materials and utilizes them in his own way.

3) First half of Middle Childhood stage (6-8 years):

A child progressively uses play materials and performs actions related to their physical and cultural backgrounds.

4) Second Half of Middle Childhood stage (9-11 years):

A child plays games which involve rules and regulations.

Everyone has different tastes for play. In fact, play is usually a form of self expression. Some

people enjoy sports, others develop a hobby. As for children, they love to sing, dance, make noise, jump or pretend to be someone else. Girls skip ropes, play with dolls while boys like to fix things and engage in more strenuous activities.

It may not always be that children play together or that their play consists of physical movements and actions. They may even get involved with inactive play or solitude play. The different types of activities are described below by grouping them according to their developmental stages.

3.2.1 First Half of Pre-school stage (2-3 years)

Sensory-Motor Play

This type of play is seen in children until the age of two years or sometimes three. It is the earliest form of play. These simple forms of play allow him to practice his sensory and motor capabilities, explore and experience his immediate environment.

3.2.2 Second Half of Pre-school stage (2-5 years)

Domestic play

Children enjoy working with adults. They work with them voluntarily as a type of play and obtain pleasure out of it. Helping in gardens, arranging rooms, running around to fetch things etc. They may even play house-oriented games with their friends.

Constructive play (illus.1)

This kind of play is found amongst many younger children (4-5 years). They play with blocks of different materials of various shapes and sizes in order to make objects out of them. Older children (6 and above) work with more complex tools and materials which may involve a lot of physical activity.

Play with natural elements and materials (illus.10)

The most easily available materials for play are the things around us. Water, sand, mud, leaves, stones etc. are materials with which children like to play. In fact play with sand, mud and clay have been stressed by child educators and psychologists, like Goldenson, Hartley and Piaget, as a creative and essential factor for children.

Art and creative play (illus.11)

Playing with colors, patterns, textures and art work such as drawing, painting and craft is popular amongst children of all ages.

Imaginative play (illus.15)

A child may pretend to use or be someone or something. Use of old hats, clothes, shoes, grocery bags, boxes are a great boost to a child's imagination. Acting out different roles, pretending to be a king or a queen or driving a car are the imaginative play types from which they derive immense pleasure.

3.2.3 Middle Childhood (6-11 years)

Play with rules (illus.14)

As children grow they enjoy play with challenges. So their play consists of certain rules to be followed. At this stage, all the above mentioned types of play take place but in their complex stages. Their drawings consist of proper figures and themes. Their constructive play is with complex materials and their imagination is followed by logic.

There are two types of inactive play which could take place, at any age:

Solitude play (illus.9)

This is when a child wishes to be alone but not idle so he plays alone or reads.

Sweet nothings (illus.13)

This term was given by Jean Piaget as a type of play. Many times when a child is asked where he had gone, he says,'out'. When asked what he did there, he says, 'nothing'. When children say they are doing nothing, they can actually be doing several things. When children are just kicking stones down the street, or rubbing their hands on the car or picking up twigs, then it can be said that they are engaged in sweet nothings. These are pleasant casual exchanges between the children and their environment which gives delight but on request for an explanation appears silly and frivolous. For example,- sitting and holding a pet, rubbing its fur, and looking down at it, one would say the child was doing nothing while he actually would be understanding so much about the pet.

All the categories of play types and activities do not necessarily have to occur within the four stages mentioned. Some of them could occur at any time during their childhood. For example,- creative play, occurs throughout childhood. The above categorization includes the types of play performed significantly at a certain stage within one's childhood. These types of play are found in the physical environment. The above categories need to be understood by designers and planners in order to provide a fruitful design solution within an urban setting.

TYPES OF PLAY

Illus.9 Solitude Play

Illus.10 With natural materials.

Illus.11 Art and creative play

Illus.12 Constructive Play

Illus.13 Sweet Nothings

Illus.14 Play with rules

Illus.15 Imaginative Play

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3.3 NATURAL OBJECTS AND MATERIALS FOR PLAY

An architect, designer, or planner for play areas must try to base his ideas and concepts on very minute, keen observation of children playing when left on their own. This was how even Jean Piaget based and derived his theories about the development of children.

In any city, in any street, children either alone or in groups play on the streets, in the back alleys, on sidewalks, frontyards etc. Many times they are not even playing with the equipment provided for play in the playgrounds as they find something much more interesting and non-monotonous in the residential areas. Children like to play with natural materials. This is because, as philosophers have said, within those materials is an opportunity to explore, to create and understand. They create order out of chaos. Most of the parents may think playing this way may be messy and undisciplined, but being messy is what they enjoy. It is one of the best ways to develop their creativity and intellect. Children go out to play, drench their clothes in mud, water and dirt.

An attempt has been made in the study and observations to explain how children like different materials, how they use it and play with it. Educators like Frobel and designers like Dattner have proved how important natural materials like water, sand, junk and nature become an important factor for play.

The common materials that children play with are:

3.3.1 Water (illus.16)

Water is an essential element for everybody in their day to day life. Simply the sight of it fascinates children. They seem to be delighted with being able to splash, feel the coolness and waddle around in puddles. Some even love the experience of drenching their clothes while bathing in the rain, or jumping into rivers for a swim. It may be a dirty affair but not for children. To play with water, children would help their parents with chores like watering plants, washing cars, or their bicycles/tricycles. Engaging into repetitive play such as repetitively throwing pebbles into river water, observing water ripples and the sound made as the stone drops into the pond are some of the rich experiences helping a child towards its creativity while some children sail boats as they play in water puddles.

"They just won't let the water go wasted". [16]

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[16] Dattner, Richard. "Design for Play", 1974, p.57.

3.3.2 Sand (illus.18)

Playing with sand is one of the most popular and most valuable occupation from the educational point of view. It helps to develop the imaginative and creative powers of a child. Educators say that this material is the most important element for any small child. Manhattan may not have a lot of sand lying around on the streets but plenty of it may be found in all gardens of many houses especially in the backyards. Construction sites, not only have sand but other materials as well. Children use their child size tools and buckets and carve out their creations, build sand castles, bake cakes and make sand toys. At times they just move their fingers around, hold the sand and experience this material.

3.3.3 Nature - trees, leaves, flowers, birds (illus.21)

As discussed earlier, children are lovers of nature and it is perhaps within the outside environment where children love to play. They like to be in farms, fields, trees, in midst of bushes, where they can find animals, insects, and explore the natural world. Trees are fun to climb and build a tree house. They also give an opportunity to hang and jump. Trees give shade in spaces where children play. Flowers, insects and birds delight children and inspire them to find out more about life around them. Without nature not only children, but man himself would be deprived of many of the wonderful experiences.

3.3.4 Junk (illus.19)

There are many things that people discard and throw away. They throw them in the trash can, or on heaps of junk which the cleaner or garbage collecting trucks pick up and take way. But before they do so, the young children living nearby collect the junk which suits their play activities. Anything of interest becomes a play equipment for them. Unwanted tires are made into swings of different kinds. Junk such as boxes are used to make pretend cars, houses and masks. At times cars are junked and children run off to these areas to play with them. They feel grown up when they play with objects not usually made for them. From the junk they find ropes to tie, hang on. swing around etc. Older children (8-11 years) dig out scrape materials like pieces of wood and metal to build something they can be proud of. All which is junk for adults, may be quite interesting for children.

3.3.5 Sticks/ twigs (illus.20)

Sticks are found anywhere along the streets, in the backyards and in gardens. During a leisurely walk even adults pick up a stick and enjoy fumbling with it. Many children love to play with sticks of different shapes and sizes. Sticks are sometimes a substitute for a baseball bat. Some play imaginary games of swords and guns while others engage into quiet play activities and craft out play things.

3.3.6 Stones/ pebbles (illus.17)

This is an interesting material found everywhere, anytime, and of all shapes and sizes. Different play activities can evolve by handling the stones in different ways. Some stones are hit at, some are thrown in the air while some are thrown into a pond. Different spaces can help to give rise to different ways of playing with these materials. Younger children (4-7 years) find more pleasure in collecting stones, arranging them and creating harmony out of chaos. Some soft stones are used to draw on the streets. Older children (8-11 years) venture out climbing boulders and large stones increasing their climbing skills. Children are creative designers and can make interesting creations from the ugliest of materials. This is because of their curious nature to learn about the environment.

"They are born true scientists. They smell, taste, bite, and feel for hardness, softness, elasticity, roughness and smoothness. They lift, shake, punch, crush, rub and try to pull things apart to understand them just as scientists deal in their experiences and base their assumptions upon the behavior and characteristics".[17]

It may be right to say that designers and architects would be able to give children of today something more explorable, adventurous and playful with an environment that can be provided by using the readily and easily available materials found all around us instead of casting and making materials.

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[17] Dattner, Richard. Design for Play, 1974 p.45.

PLAY WITH NATURAL MATERIALS
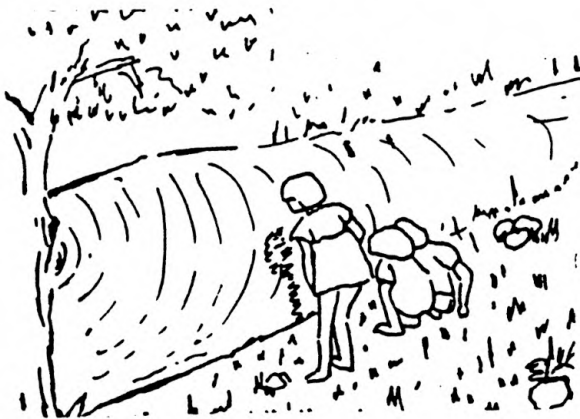
Illus.16 Water Play

Illus.17 Play with stones and pebbles.
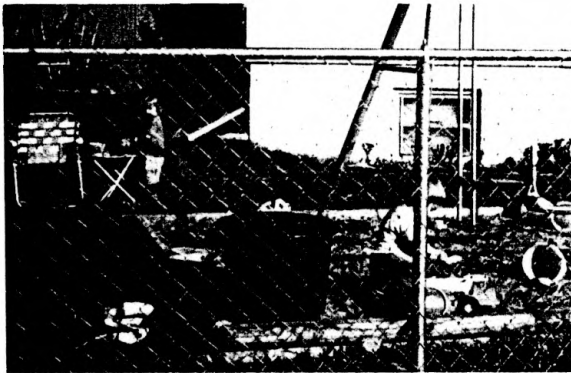
Illus.18 Sand Play

Illus.19 Play with Junk

Illus.20 Play with sticks/twigs

Illus.21 Play with nature
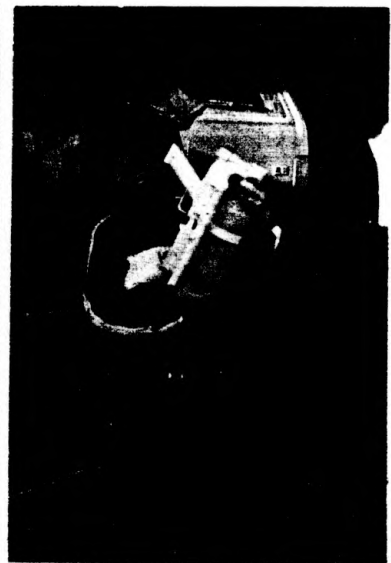
Illus.22 Play with water/toys

3.4 PLAY AND CLIMATE

Climate can influence play and the type of play activities. Activities which take place during the winter may not be the same as those taking place during the summers. Here in Manhattan, summer, winter, spring and fall are the major seasons. But the climate has been determined as winter and spring for the purpose of this study as those were the seasons during which the study was done. In winter, the snow fall brings an opportunity of winter snow activities such as sledding and snowman building.(illus.23). Children wear bundles of clothes to keep themselves warm. As for spring, activities like cycling, running, skating etc. can be popular (illus.24).

Rain brings along altogether new play activities like bathing in the rain, sailing boats, collecting tadpoles etc. Play activities also depend on the temperature of each day. On very hot days children would spend most of their evenings in the swimming pools. On pleasant days street activities become important. This may show how play activities keep on changing every day, in every neighborhood and in every environment.

Illus.23 Winter Play

Illus.24 Summer Play

"I'll bet you I can jump higher than the

Empire State Building."

"Oh yeah?"

"Yeah, the Empire State Building can't jump."

--Traditional Children's Joke.

as quoted by Dargan, Amanda in City Play, p.1.

4

PLAY IN AN URBAN SETTING

4.1 CHILD IN THE CITY

Cities all over the world are attractive as well as repulsive. They perhaps do not fulfill our needs totally nor will they ever be able to for every man. But it is certainly possible to make an attempt. If a child was asked to describe a city he would reply as, "Oh! A place where there are huge buildings and lots of cars and lots of people". The planners and designers have to be aware of the fact that a child must see the other side of the city as well. It may not be easy because the city does not offer the child as much as it offers the adults. This can further be explained if one imagines and thinks of a city in which all children have vanished, a city where no human beings between 0 and 12 years are found. If this was the condition then what changes in the physical structure would have to be redone? Primary schools, children's hospitals and other buildings could all be easily transformed into schools and hospitals for the adults. Playgrounds could be turned into recreational areas. The roads and the road system would not change as the roads are not accessible to children any way. Perhaps almost everything is for the adult.

"If children are not able to explore the whole of the adult world around them, they cannot become adults. But modern cities are so dangerous that children cannot be allowed to explore freely".[18]

The need for children to have an access to the outer world is perhaps known by everyone. But in the city, life is so vast and dangerous that children cannot be left to roam alone. There is a constant danger of moving cars and trucks and maybe kidnappers, too! The problem may seem to be too complex to solve, and may be considered by widening the areas where children can be left alone. By widening the areas means to give children more areas of safety or widen areas which are already safe for them. Children find safe areas near their dwellings, schools, street sides etc. There certainly exist lanes and streets where they play, but maybe the same streets and lanes could be built so that they are more 'playable'.

The pleasures a child gets by playing is like the pleasure he derives by bathing in the rain, it is short lived. What a child needs is something more permanent which the city can absorb without losing anything - something intended for the child and discovered by him as his own, something which the child adopts in his own way to his imaginative life, something simple where there is room for it - to attract the child from darkness and danger in to light and greater

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[18] Alexander, Christopher, Pattern Language, 1977, p.291.

safety.

"It is impossible for the child to discover the city unless the city discovers the child. The discovery must be reciprocal or there is no discovery at all".[19]

Whether the child is in any area of the city, residential or commercial, industrial or agricultural, that child is bound to play. The area may be safe or unsafe, whether we design it or not, they will play with anything the city offers.

The following section of the chapter describes play in various unplanned spaces of the residential settings. Children venture to play outdoors using the access areas as well.

Illus.25 They like to mess around in all spaces.

These access spaces and the children's location of play are studied in the later section of this chapter.

4.2 PLAY IN THE UNPLANNED SPACES

Children use the unplanned spaces such as the local streets, frontyards, side yards, courtyards, steps and others near their dwellings for play. They talk, meet, walk about together and like to play and mess around in those spaces. Just beginning to assert their independence of the family, it is as if they are testing a society of their own and being outside is the place

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[19] Eyck, Ado Van, as quoted by Lederman, Alfred in "Playgrounds and Recreational Spaces, p.37.

for it. Children have an amazing capacity to create their own play space.

"They can see 'the gold beneath the pavements' where adults see only garbage and dirt".[20]

For this study, we shall consider the unplanned play spaces and not the planned spaces which relate to playgrounds and is not within the scope of this thesis. This section of the chapter shall in general show the areas of play and the activities which could occur within residential areas The unplanned play spaces have been divided into two types:

1) The near environment of the dwelling.

Spaces located within 20'-30' of a building can be placed in this category.

They include building steps, railings, walls etc.

2) The far environment of the dwelling.

Spaces located at 30' and more from a building can be placed in this category

such as streets, the woods, wastelands etc.

This classification and following part of the study has been done referring to Anne-Marie Pollowy's studies in her book, "The Urban Nest".

4.2.1 The near environment of the dwelling

1) With the built form

Children spend most of their play time near home and find things to do wherever they can. The buildings are one of the attractions which provide them with many possibilities. There are vast opportunities a building can create such as steps to jump from, walls to hit balls against, railings to climb down, ledges to climb along and so on. Today's architecture may be too smooth and plain to offer possibilities for play.

2) Steps

The door step of the house is a very common play space for group or solitude play. Climbing steps and jumping down, sitting on them and socializing are some of the common activities taking place in this area.

3) Floors/Grounds

Floors and the ground are used to draw on, play on or even skate on.

4) Walls

If children are given a paper and a pencil to draw they will do so. But doing the same

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[20] Bengston, Arvid. "Adventure Playgrounds", 1972, p.61.

on a wall is a different experience where they can run from one end to another and scribble all the way. This is not intentional vandalism. Again walls are of importance to play hide and seek, to hit balls against, etc.

5) Cave-like spaces (niches, corners)

For playing hide and seek, a building needs to have some 'hiding' spaces. Children like to be in small cave-like spaces, to get under, in or behind old boxes, staircases and so on. They may feel in proportion to such spaces! They try to make places for themselves and their friends, creating areas that are 'their size'.

6) Around the built form

Herman Hertzberger, a Dutch planner said,

"This is the gist of what I want to say to you: That to the child the whole city, rubbish, dumps and all, was, is and shall still be a potential playground. But there is a strong likelihood that the city is becoming "crippled", specially designed playgrounds can be regarded as crutches - necessary no doubt, but as a best substitute and certainly not a luxury when needed".[21]

Children from bigger cities living in apartments may be deprived of such opportunities as there are perhaps no playable spaces at street level as compared to the more varieties of play opportunities available to the children of the same income level living in town houses and housing complexes.

4.2.2 The far environment of the dwelling

1) Street Spaces

The street has acquired a bad name as a place for children to play. But a street is a good playground because it is close to home, it is a continuous strip which can be supervised by many households, it has many other interesting activities going on, and also because to the child it is his very own territory.

The layout of streets influences people's lifestyles. They have become integral parts of our movement and communication networks. They provide access to public and private areas. Activities change as one moves from private areas to public areas. Streets could be of various types ranging from primary public to tertiary private streets. They differ in their layouts as open or dead end streets. But the most important characteristic of a street is its environment and its planning which gives the kind of life it has. Some streets provide a feeling of 'my street' to

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[21] Hertzberger, Herman. Children's Play Areas, 1978, p.379.

many people and this is what children who are playing may want to feel. Today's streets have become dangerous for children, with their primary function to provide the city with its circulation spaces. Most of the cities appear as if they have forgotten the existence of children. Children today are usually kept away from streets being too dangerous, pushed away from delightful play areas, far away from grandparents and unwanted by neighbors. In order to improve this environment many attempts have been and are still being made. The problem may not be so grave for a city as large as Manhattan, Kansas, where street play in some areas is still possible.

But children's play space still competes with parking needs. As Anthea Holmes wonders,

"What happens when the little football area becomes a sea of mud? Where does the child climb, hide and build a cabin"?[22]

These were some questions which designers are aware of and are trying to incorporate into their design processes. The layout of the streets hence influences the activities as it can control the amount and type of traffic which passes by. A street acts as a common space for all those children residing on it and can be supervised by adults very easily. The street has so many interesting activities taking place that it would not help by depriving children of such spaces to play in.

4.3 PLAY IN ACCESS AREAS

Access areas are important for children's activity. The area between the dwelling and the open communal areas may be termed as access areas. Since it is the most immediate extension of the dwelling, it is an area which acts as the first place of near home explorations
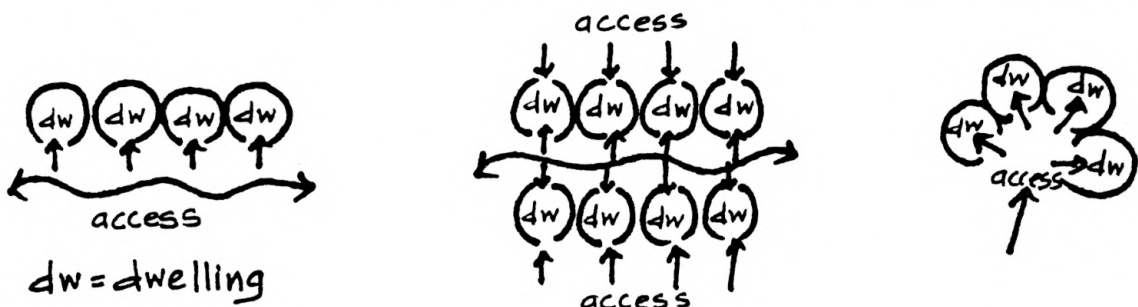
Fig.1 Different access areas.

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[22] Holme, Anthea. Children's Play: A Study of Needs and Opportunities, 1970.

where children can have an opportunity for observing various outdoor activities.

It is necessary for such intermediate spaces to exist. Until children are free and able to explore the far environment, access spaces will greatly affect their patterns. One must know how far these spaces cater to children's needs. The younger children sit around or stand with their toys near their houses. This is the image of doorstep play: the stage between the calmer indoors and the more active outdoor pursuits. The major types of access areas are:-

Sideyards

Backyards

Porches/steps

Front yards

Sidewalks

Access areas are created by the relationships of the dwelling and the exterior spaces (Fig.1). They could be spatially far away as in the apartment areas, could be right at the doorstep as the houses laid on the grid iron pattern or they could even be grouped around a court as in some town houses. The first link to the access area is through the entrance of the dwelling i.e. the door. There are two kinds of accesses:-

1) Direct Access (Fig.2): A direct access is when the access through the door leads immediately to the outdoor open spaces for play. This is found in houses laid on the grid pattern.

2) Indirect access (Fig.3): An indirect access occurs when the access through the door does not lead straight into outdoor open spaces but passes through an indoor or semi-outdoor space to reach the outdoor spaces. This type of access is found in apartment complexes.

dw=dwelling
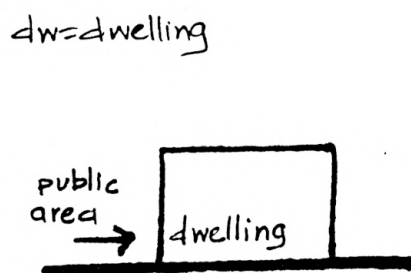
Fig.2 Direct access
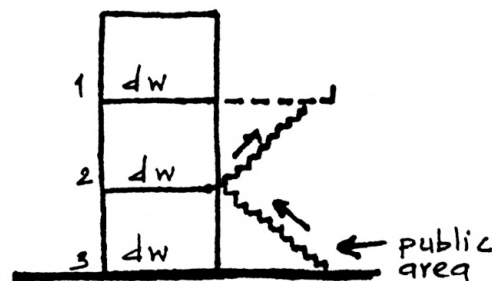
Fig.3 Indirect access

4.4 LOCATION OF PLAY

Actually there are no definite areas where children play but there are certainly areas where they tend to play. Children want a great variety of opportunities and when the weather conditions are favorable, their preference is for outdoors. Children, normally, are not allowed to play in areas considered by adults as unsafe. Hence, their location of play and its extent will be affected by parent's attitude as well as by the developmental factors.

Depending on the child's age, their mobility, their activities and their needs, the radius of action increases (Fig.4). The radius of action is the radial distance around the house a child would venture alone. If this is seen in terms of distance and time, one can say that children would play within an area of five minutes of walking distance from their dwellings which could be approximately termed as 300 mts., while maybe older children travel even further away. This could be described as their radius of action.[23] The distance and time followed is referred to from Anne-Marie Pollowy's research.

9-11

6-8

3-5yrs

dw

dw = dwelling
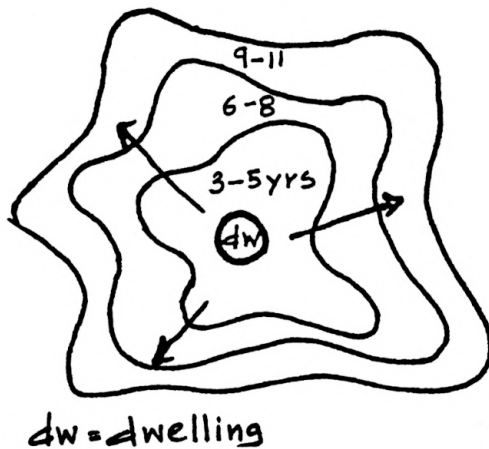
Fig.4 Radius of Action.

4.4.1 Pre-schoolers (3 to 6 years)

The children of this group are considered as a 'special group'. Lady Allen in her book says that their behavior is quite often abstract, movement comparatively slow and exploration is often localized.

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[23] Pollowy, Anne-Marie, "The Urban Nest", 1971, p.38.

40

"For younger children creative play appeared far more abstract then for older children - the first explorations of their immediate surroundings".[24]

This age group of children play within the eyesight of their mothers and normally do not travel further than their private open spaces. They would stand near their home and watch other children at play or other activities. They enjoy simple equipment and enjoy climbing, sliding, swinging etc. They may tend to play within their defined areas near their dwellings. This is the stage in which door step play is the most prominent and where visual accessibility to home-base is necessary.

4.4.2 Middle schoolers (6 to 11 years)

It is obvious that children under eleven are the major users of the outdoor spaces in any housing development. They perhaps play outside more than any other age group. One may even say that this age group is more independent than the under sixes, yet they still tend to play relatively close to their home. They play with a wider range - on the streets where the traffic flows, in lanes, on roofs, in junk yards and many other impossible, unimaginable places to adults.

They often play in unplanned areas whether safe or not, especially where many other activities take place. Once in a while, they may wander further away until out of sight from their homes and walk into the nearby woods or roam and explore the nearby streets and alleys. Girls are more often seen in pairs while boys are, at least in theory, free to roam around.

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[24] Lady Allen of Hurtwood, as quoted by Pollowy, Anne-Marie in "The Urban Nest", 1971, p. 40.

Twinkle, twinkle little star,

How I wonder what you are.

Up above the world so high,

Like a diamond in the sky.

--Nursery Rhyme.

5

# CASE STUDIES

From the review of literature, it is obvious that many attempts have been made by philosophers, architects, and planners to describe the need of play and recreation. Educators and writers like Crow and Crow, Gessel and Ilg, Goldenson and Hartely have emphasized the use of some plain simple materials and elements like sand, water, earth clay, wooden blocks, paper etc. to express one's mood, while architects and planners emphasize the use of large scale areas for play and recreation. The focal point of children's lives is their home and its immediate surroundings, with the immediate surrounding expanding with age. They spend a great deal of time in and around their home. In most aspects of children's lives and particularly for pre-schoolers their neighborhood is effectively their world where they go to school, play, run errands, meet friends and where most of their activities take place. It is the outdoors where much of this happens.

The following case study has been carried out in order to understand how children play, what kind of spaces they play in, what kind of spaces they create and some problems that they may be facing. Only the outdoor spaces most commonly used have been studied. The study has been carried out for three selected neighborhoods of Manhattan, Kansas, USA. A brief description of Manhattan is given below after which the description of the selected neighborhoods and their observations shall follow. The observations are studied in terms of the physical characteristics and play activities for winter and spring for each space. The activities listed are in the order of the most frequently occurring.

5.1 THE CITY OF MANHATTAN, KANSAS

The city of Manhattan was established on February 14, 1857 and its population has grown to approximately 40,000 since then. It is located in the state of Kansas, USA and within the heart of a region known as the Flint Hills. Most of the residents of this city are students, Kansas State University employees, businessmen or they reside here due to their connections with the military base nearby Fort Riley. This part of the study deals with the street layout showing how the selection of three neighborhoods were made for the research.

Many studies related to the downtown development and redevelopment of Manhattan, Kansas have been undertaken. The city's downtown is located almost within the **center** of the entire city. The neighborhood planning and street layout around this area is laid on a grid iron pattern. This is probably because of the early settlers who came down from the east coast and
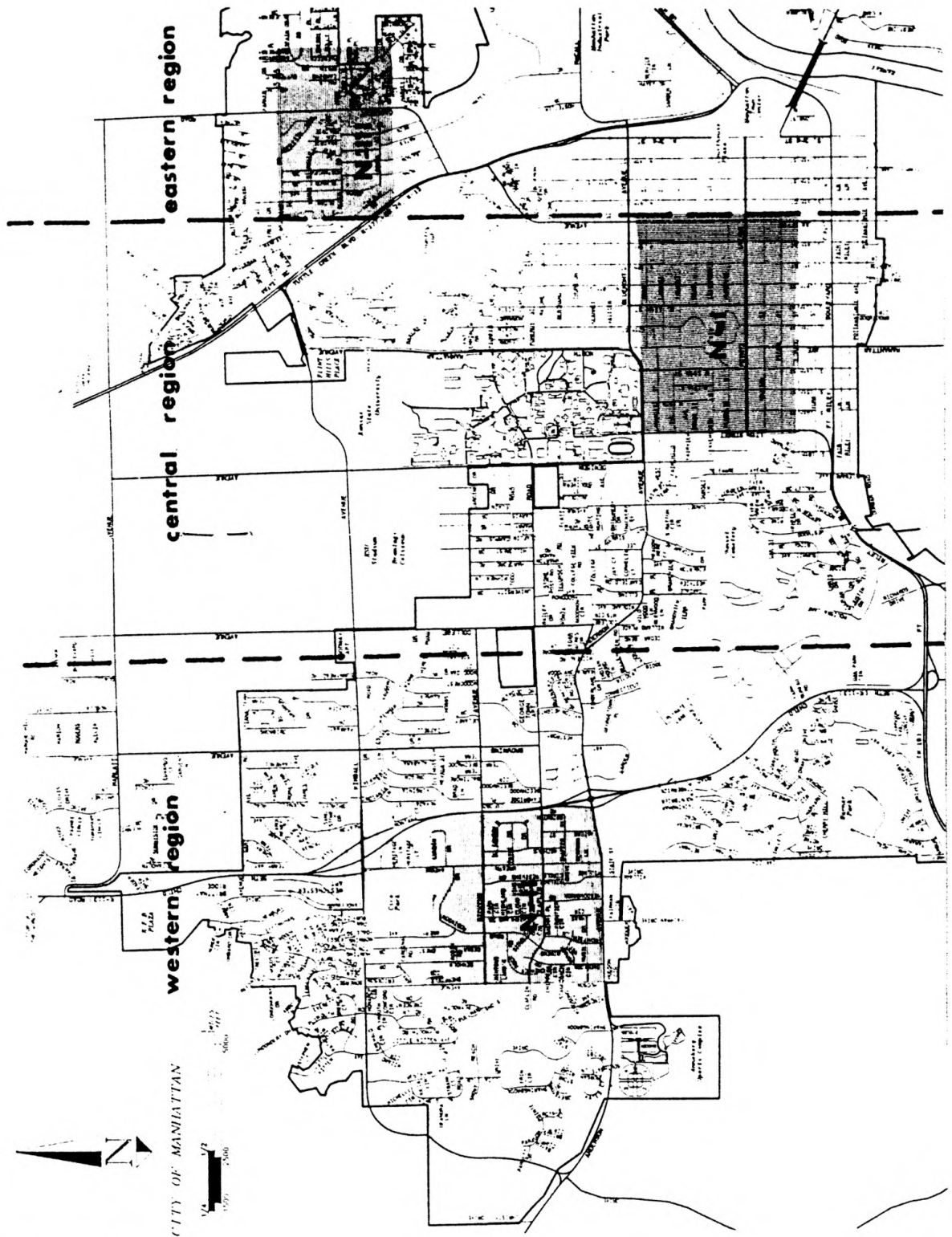
Map. 1 Manhattan, Kansas.

laid the streets 60' apart within the downtown area.[25]

As we move towards the **western** side, the grid iron pattern seems to break up. The major roads such as Claflin, Dickens, Kimball and Marlett fall at right angles to other roads such as Browning, College Avenue and Denison. But the subsidiary roads branching from these primary ones are more or less forming curved paths and irregular organic patterns with most of them ending as dead ends or cul-de-sacs. Driving along these roads has a very different experience from those which are laid on the grid iron pattern. Here, one doesn't get the impression of a monotonous drive. Moreover, there are many interesting views, surprising entrances and dead ends on many of these roads.

The case is much different on the **north eastern** part of Manhattan. On the eastern side of the highway K-177 the residential area is not as well developed as the others. Most of the streets are linear but many of them intersect each other at various angles other than 90. This part of Manhattan has town houses which form a mini town-like residential area. The streets are no longer thorough streets and are used mostly by the residents and their visitors. This is an entirely different neighborhood situation.

The above mentioned are the three areas of Manhattan which have been selected on the basis of their differences in their planning and layouts - one within the **central region (neighborhood I)**, another in the **western region (neighborhood II)** and the third in the **eastern region (neighborhood III)**. The research shall not deal with the reasons as to why there exists a difference in the road layouts. All three are residential areas with the only major difference lying in the layout and its street pattern. One a grid, the other with cul-de-sacs and the third a townhouse complex. This difference can, hence, give rise to and affect many factors like the traffic, safety, open spaces which affect children's play activities, patterns and play spaces.

This part of the study now describes each neighborhood and discuss **each informal space categorized within each neighborhood in terms of its physical characteristics and play activities.** Play activities have been recorded according to winter and spring. It will also include types of materials used for play, the location of play, and factors influencing those activities. The spaces observed were: sidewalks, streets, frontyards, backyards, back alleys and sideyards.

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[25] Kansas State University, "Neighborhood Plan - Manhattan, Kansas, College of Architecture,   1964, p.12.

5.2 NEIGHBORHOOD I - (Grid Iron Pattern)
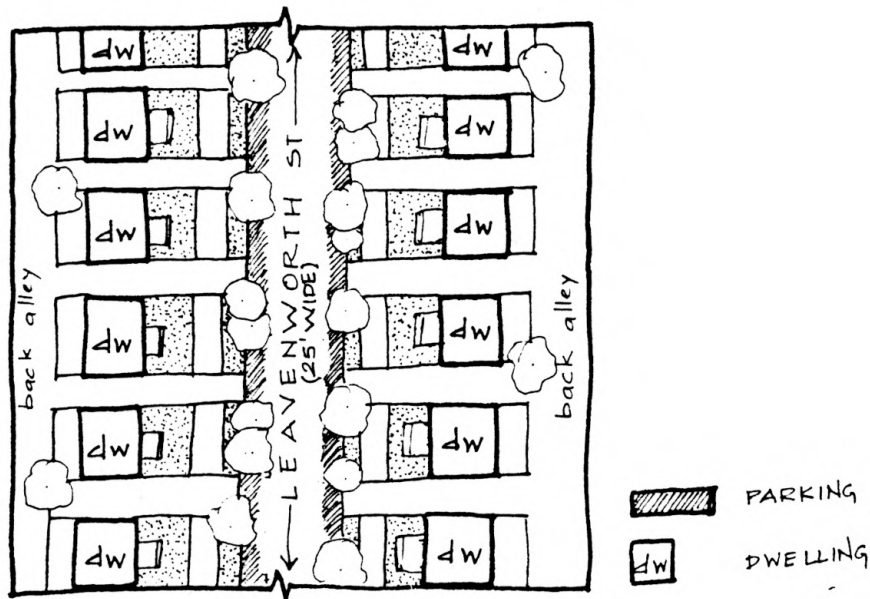
Fig.5 Character of Neighborhood I

The first neighborhood which has its residential area organized along the grid iron pattern is similar to that of many other cities in the United States. For this research, Leavenworth Street was selected because during the pilot study, children were moving and playing around this area more than the other areas observed, and in addition play equipment and toys were found to be present within the open spaces.

The character of neighborhood I (Fig.5) shows that numerous houses are located with their front doors facing onto the streets. The area selected was more then a mile long having approximately seventy houses. Being a residential area there are always many other activities going on besides play. For example, adults exercising, some socializing, some gardening, others running errands and so on. Each house has its own driveway which can accommodate one car. There are rarely any houses with garages. The concept of garages is contemporary. This neighborhood is actually one of the earliest developments of Manhattan and can be referred to as the older city. In those days, there were not so many cars as there are today for which such a provision was never made. The city was established at a time when the population and traffic was much less. Thus, cars are found to be parked along the road sides. Sometimes the streets are found to be too narrow with cars parked on both sides of the road and a two way traffic. Children still live within these conditions and have found ways and means to satisfy

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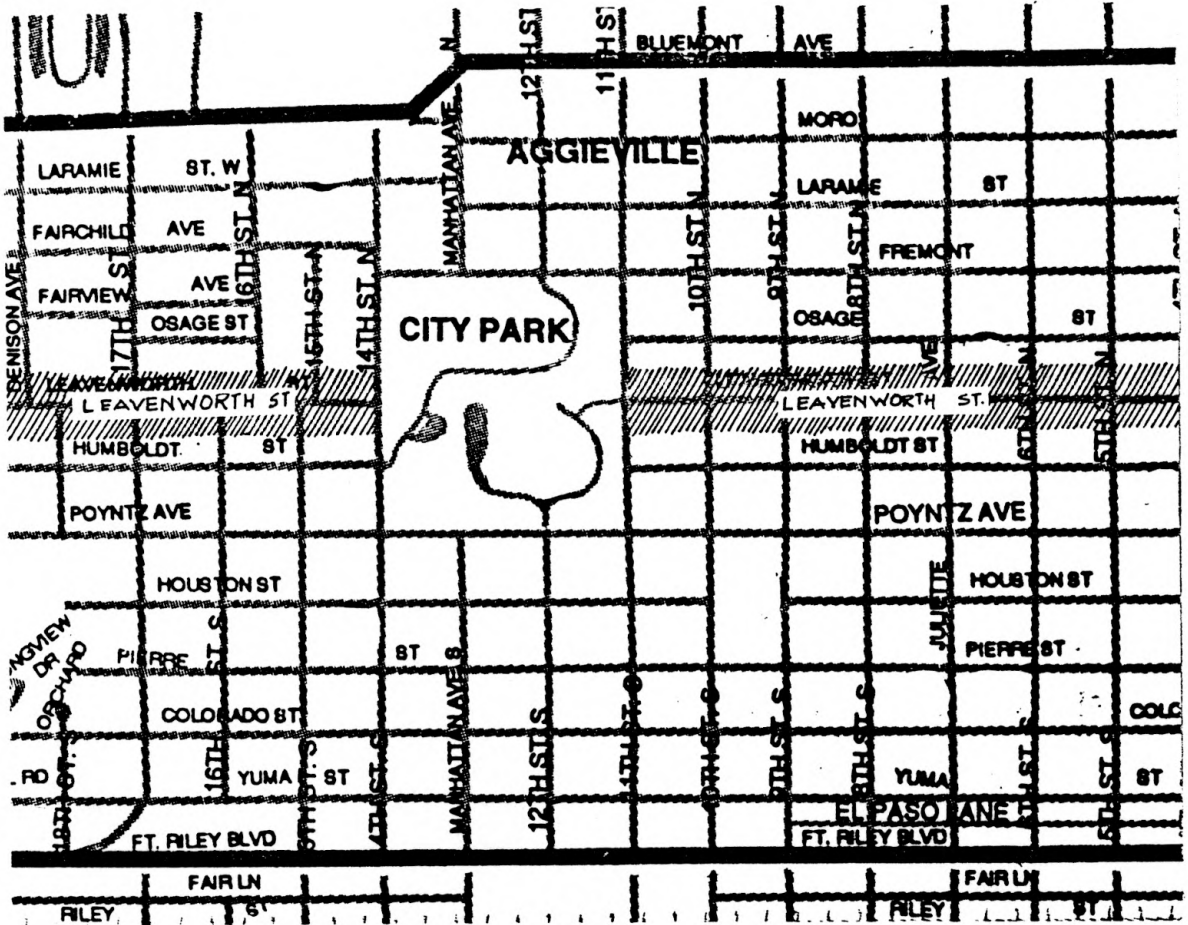
Map.2 Neighborhood Plan I - Grid Iron Pattern.

Illus.26 Neighborhood I - Leavenworth Street.

their inner urges.

Leavenworth acts as a subsidiary thoroughfare since it runs from east to west and parallel to Bluemont and Poyntz which are primary roads. Leavenworth runs straight but is intersected by the city park which breaks it and then continues straight ahead after the city park limits (Map.2). Traffic is a major activity on these roads. Cars, cyclists and pedestrians form the major traffic. Besides traffic, as mentioned earlier, activities like exercising, gardening, socializing etc. take place. Some people sit on their front porches to be a part of the street activities by merely watching.

Leavenworth Street stops at a dead end on the western side of the city where it meets Delaware Avenue running north to south. It stops at a very interesting situation where the topography changes. There is a steep slope upwards at the end of the road.

Illus.27 Cars are parked along the street sides

Illus.28 Linear streets with an avenue of trees.

Such a natural contour becomes an interesting play space for children. Looking at the linearity of these streets children can engage themselves into many street activities. The linearity of streets formed by the grid iron pattern is further emphasized by the avenue of trees planted along the two sides of the streets. The front yard of each house has well maintained lawns and gardens. All this gives a pleasant feeling while walking or driving along. There is a large open parking lot near the intersection of Leavenworth with another street. This space gives a sudden feeling of openness. It opens up the view to another street called Humbolt which runs parallel to the south of Leavenworth acting as a connector between both streets and at times may link

the activities too.

Almost every house possesses a frontyard with a front porch, a sideyard and backyard. The backyards are also accessible from the rear of the houses as well as from the back alleys. Certain areas within the back alleys have parking spaces which often get too crowded. The back alleys are much safer than the front. Here too, there are all kinds of activities that are carried on, unlike the front spaces traffic. They seem quieter and have more freedom to move around.

5.2.1 Observations of Neighborhood I

The study below has been categorized into the spaces as listed on page 8. The spaces have been studied in terms of their physical characteristics and the play activities observed.

5.2.1(a) Sidewalks
Physical characteristics
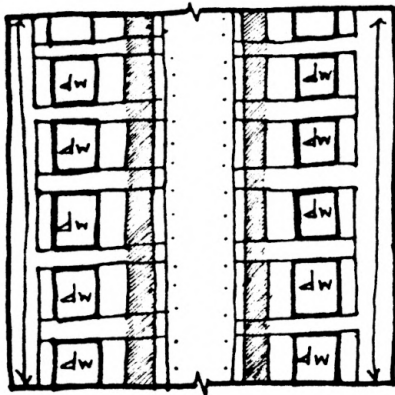

Fig.6 Location of sidewalks-I

Illus.29 View of Sidewalks

- The sidewalks are safe for pedestrians.
- They are straight linear paths, smoothly paved and ran parallel to the streets.
- These spaces were intersected by the driveways of individual houses.
- Intersecting streets broke the continuity of the sidewalks.
- Trees planted along the roadside gave shade over the sidewalk spaces.

● Sidewalks were approximately 6" above the street level and 3' wide.

Play Activities

Approximate number of children playing: 8-10.

During the observational stage, there were certain visits during which children were not seen outdoors. The reason may have been due to weather conditions which did not permit parents to allow their children to play outdoors. During the winter season most of the play activities were related to snow. The activities observed are described here.

Most Frequent

Winter

● Building of snowmen and snow castles.

● Sliding down on ice on the sidewalks with friends. Sidewalks are linear spaces and hence such activities were carried out with ease (illus.31).

Spring

● Many times during sunny site visits, sidewalks became a popular place for cycling. These linear spaces having only the pedestrian traffic, made it fun for them to ride on.

● Street like activities were performed on the sidewalks. Activities such as skateboarding, skating, going for rides, taking pets for walks, and so on, were found. In other words being a paved area, play activities with wheels took place such as giving friends a ride in wagons, roller skating and toddlers pulling along their toys on wheels etc. (illus.32).

● Play with junk and natural materials was observed a few times (illus.35).

● Some children were observed to be running along the sidewalks and letting out their feelings through their actions like jumping and shouting.

● Sidewalk spaces have people walking up and down. Children were found to be interacting with them as they passed by talking and greeting them.

● These spaces are like streets but much safer. It is easy for parents to keep an eye on children as they sit on the porches.

Less Frequent

Winter

● Some children were found to be enjoying themselves as they helped adults shovel snow along the sidewalks. This may seem like work to adults, but for children it is a playful activity.

This experience can give children a feeling of satisfaction - a feeling of growing up and of being helpful.

Spring

● Children are on the lookout for interesting things. This was observed when they played with water puddles. They were forever exploring the world around them. An uneven level in the sidewalks allows water to get accumulated which would then flow down to the drainage. This activity was once observed and the children were found to be sailing boats, throwing stones and also removing their shoes to waddle through it. They need to explore and understand the feeling of different materials.

● On other site visits, a group of girls were observed skipping ropes. This is a way in which children engage themselves in social activities - 'social play'

Play Activities on sidewalks - Neighborhood I
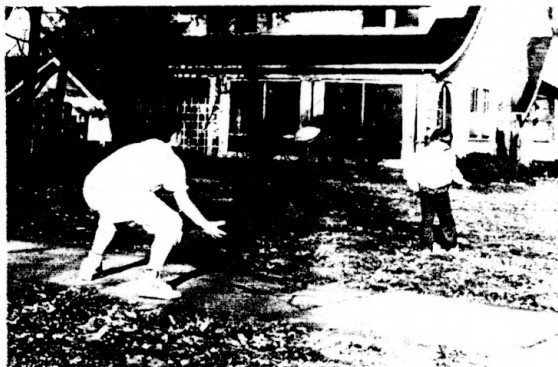
Illus.30 Using the sidewalks as end limits

Illus.31 Snow Play on sidewalks.

Illus.32 Riding on wheels

Illus.33 Going for walks

Illus.34 Interaction on sidewalks.

Illus.35 Play with junk on the sidewalks

5.2.1(b) Streets
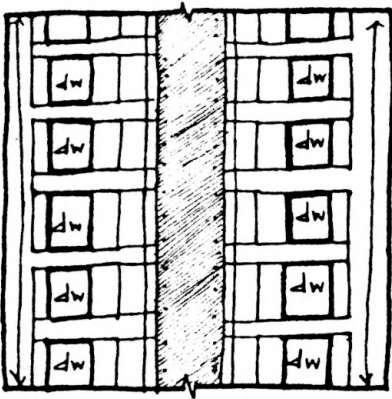
Fig.7 Location of streets-I

Illus.36 View of Streets

Physical characteristics

● Situated within the central region of the city the street spaces were organized along a grid iron pattern.

● Linearity was the main quality of these streets.

● Parallel parking existed on both sides of the road.

● The streets were tarred approximately 25' wide and had curbs approximately 6" above the street level.

● The major activity found on the streets was the traffic.

● An average of about 8 to 10 cars passed in a minute.

● Intersection of other streets with Leavenworth was usually at right angles.

● Many times along the street, especially on corners, blind spots were found which proved to be very dangerous.

● Fire hydrants were found at regular intervals

● Street lights were located on one side of the road at regular intervals.

● Going towards the west, the street began sloping upwards, while towards the east the continuity of the street from 15th to 12th was broken by the location of city park in between.

Play Activities

Approximate number of children playing: 2-3.

The first impression about children, during the site visits and study of street spaces

was that, no matter how much traffic passed by, children did not fear very much. They were always wanting to explore the environment around them. This is why it may always be necessary to have parents keep an eye over the children as they play. Most of the children found playing within these spaces were of an approximate age group of 9 to 11 years.

Most Frequent

Winter

● No winter street activities were observed.

Spring

● Street activities were found to be of various types. Within this neighborhood the major activity was traffic. The street becomes an area which could act as a divider between two areas ie. two sides of the streets. Adults may see these spaces designated for a particular function - the passing of traffic.

● Skateboarding and playing ball across the street were popular activities. (illus.39). Being tarred and hard surfaced, the streets were areas where older children could roller skate or skate board.

● Some children invented a different kind of an activity. They used chalk to draw on the streets. They used the spaces more towards the parked cars than within the open street space.

Less Frequent

Winter

● No winter street activities were observed.

Spring

● As the street sloped upwards, the topography changed and became more exciting especially for children. This slope was found to be an excellent play space for rolling down and sliding.

● Some children were sitting on the street curbs with friends and engaged in inactive play which involved socializing, exchanging ideas and thoughts (illus.37).

Illus.37 Street curbs to sit on.

Illus.38 Leavenworth has a huge open space
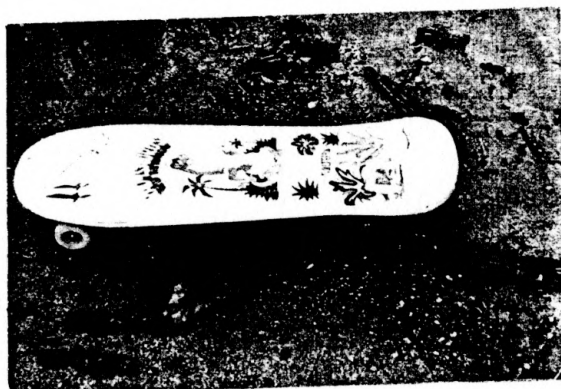
Illus.39 Skateboarding

Illus.40 Cycling on streets

Illus.41 Leavenworth slopes to the west.

5.2.1(c) Frontyards
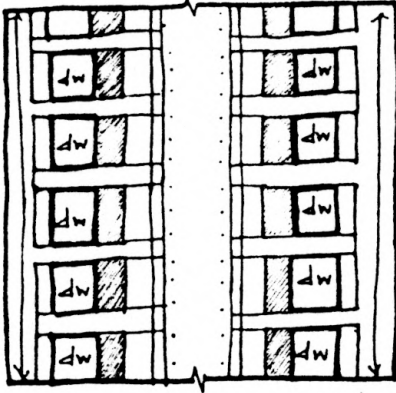
Fig.8 Location of frontyards-I

Illus.42 View of Frontyards

Physical characteristics

● Within the neighborhood of Leavenworth street, the frontyards are linear spaces laid along the orientation of the streets.

● They were divided into several segments by resident's individual driveways and had no fencing around. Some houses which prefer to have fencing around their frontyards do so but these fences were of wire or iron not higher than 18". This was due to city regulations.

● The spaces were about 10'-15' deep. Though this did vary from house to house.

● A variety in the differences in the appearance of the frontyards breaks the monotony (to a small extent) of the otherwise so monotonous streets.

● The sidewalk physically separated the frontyard spaces from the street sides and the more public spaces.

● Each frontyard has been lawned and is well-maintained by the residents. Some have gardens while some prefer to leave them plain.

● The steps leading to the front porches start right from the frontyards.

● Front porches are semi-open and it is the transition space from close to open spaces and from private to semi-public spaces.

● These spaces were not paved nor did they have a hard surface like that of the sidewalks and the streets. They were landscaped and hence gave an opportunity to have a variety of different experiences.

● Water, leaves, sticks and stones are the kinds of natural materials that were found along these spaces.

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- Trees were planted more towards the sides of the houses leaving the front facade open to these spaces. It also resulted in less shade during the summers.

- Frontyards were less dangerous than streets and in fact quite safe.

- Parents fear less if they know that their children were playing in the front yards and within their eyesight. These spaces are easy to supervise not only by one house but by neighboring households.

Play Activities

Approximate number of children playing: 6-8.

As seen earlier, frontyard spaces are transition spaces linking the private to semi-private areas. Being semi-private they are safer than the streets which are public. Not many problems are faced and hence it was observed that play activities were performed with more freedom in action.

Most Frequent

Winter

- Snowman building and playing with snowballs were the favorite winter play activities (illus.47).

Spring

- One of the favorite activities observed was playing with a ball. With lots of open and safe spaces it became a popular activity. Children from an age group of approximate 3 to 6 years were found playing more towards their houses. They were riding tricycles, playing with their toys or waddling in their swimming pools kept within the frontyards.

- Children of all ages were observed playing within these unplanned play areas. Many running games and group play activities were observed. Activities such as Tick Tack had rules which were to be followed and the physical environment was what children incorporated within their limit of play spaces (illus.43).

- Another interesting activity observed was the social interaction children had with their peers - social play. Playing in groups and in a space which is easily approachable gives a possibility for children to socialize, meet other children and explore more of the adult world around them.

- The nature around is an important factor in the environment within which children live. Trees were used for climbing, hanging and making tree houses.

• Younger children (3-6 years) squat on the ground to explore the nature around them. Fiddling with the grass, leaves and even the sand is a way they learn and play. Many engaged themselves into repetitive play with these objects (illus.45).

<u>Less Frequent</u>

Winter

• Sometimes children were found to be helping their family shovel snow from the frontyards.

• A couple of times two to three children would pull each other on their sleds for snow rides.

Spring

• The steps also turned out to be good spaces for quiet play. Not only were children found have a liking to this space but so were the adults. It is a place where thoughts and ideas could be exchanged. This may be a way of playing and making friends - a learning process (Illus.44).

• Some children were found to be looking at interesting places and spaces for 'special things' like small corners and niches to be cozy in for their special activities.

• Ropes and other objects which are junk for adults are precious to children as they invent play that can be interesting.

Play Activities in Frontyards - Neighborhood I
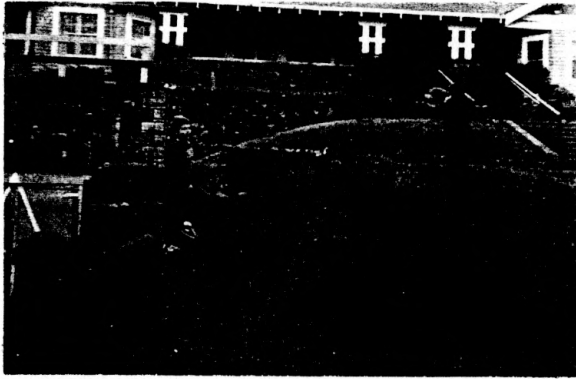
Illus.43 Play activities depend on the physical environment.

Illus.46 Skipping at the doorstep.

Illus.44 Built form and elements used for play

Illus.45 Exploring the frontyards

Illus.47 Decorating the frontyards?

5.2.1(d) Backyards
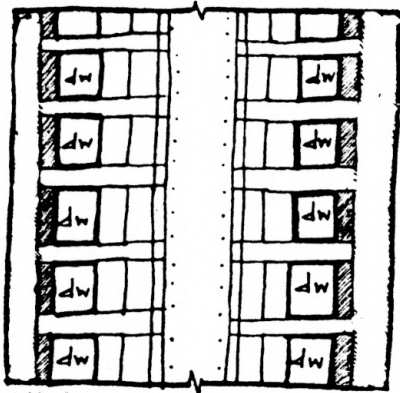
Fig.9 Location of backyards-I

Illus.48 View of Backyards.

Physical Characteristics

The backyards are the areas found at the rear side of the houses. These spaces may be private, semi-private or public.

• In this neighborhood the backyards were strictly private spaces with fencing about 4' to 5' high around them.

• Just like the frontyards a lot of activities took place but they were of a different kind. This is because their situation, location and function are different.

• Since the houses and streets have been organized on a linear pattern, the backyards follow the same.

• The backyard spaces had a definite boundary separating itself as a private space from the semi-public alleys.

• The backyards had either small playgrounds or junk stored within them. Some houses made their backyards into working areas and sheds while some just looked deserted. A wide range of variety was found in the usage of this space (illus.49).

• Being the safest of all areas, play equipment is usually left lying around.

• Within most of the houses these spaces were not lawned nor entirely landscaped.

• The area was not paved but the soft sand was exposed which gave an opportunity for other play activities.
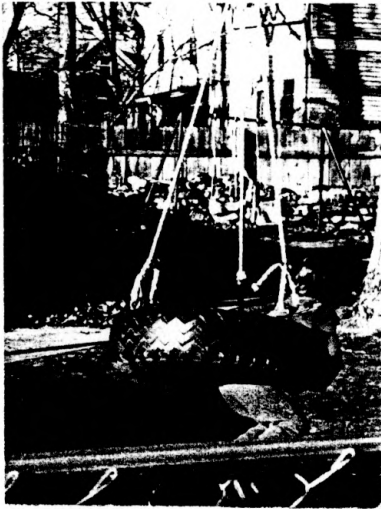
Illus.49 Small playgrounds with junk storage

Illus.50 Exposed sand gives an opportunity to other play activities.

Play Activities

Approximate number of children playing: 4-6.

Since within this neighborhood the backyards became private spaces some activities that took place were different and interesting. The backyards may serve as ideal places for playing within the 'not so clean' spaces. Getting dirty and making a mess is a way of playing. Children's movement was more free than in the frontyards.

Most Frequent

Winter

• Just as in the other informal spaces seen, snowman building was observed. Children playing in these spaces used the junk materials around them to decorate the snowman.

Spring

• Playing ball was found to be a popular activity. The fencing acted as a net for games like badminton, tennis and kick ball.

• One backyard observed had tire swings and the play equipment around gave the impression of an adventure playground. Adventure playgrounds are playgrounds which do not have the fixed metallic play equipment like the slides and swings, but in fact have play equipment which are flexible in its use and made up of junk materials.

• Younger children and toddlers play freely within the backyards as they are fenced around giving them a sense of protection. Some children played with junk, the exposed sand and mud while some played within the sand pits. Building sand castles, baking sand cakes are some of

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the imaginative things they make. Sand and water have been suggested by child educators to be the best way for children to enhance their creativity (illus.50).

● Older children about 8-11 years indulge themselves into constructional play. Children enjoy building, working with tools, hammers, nails, saws, and making their own creation. Their play such as kicking balls, throwing stones consist of more challenges and skills (illus.51).

<u>Less Frequent</u>

Winter

● No other winter activities were observed.

Spring

● Within most of the backyard spaces, junk and unwanted stuff was piled up. This was found to be quite repulsive but it actually was the most attractive and interesting ground for children. A place where they could create, explore and discover the wonders of the world. These spaces
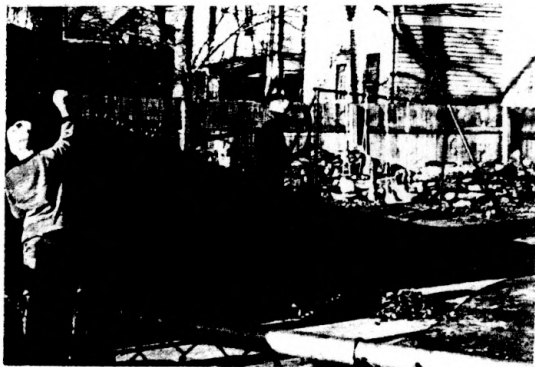
<u>Illus.51</u> Constructional play in the 'not so clean', but rich in experience, backyards.

<u>Illus.52</u> Playing in the back alleys.

had many unwanted objects and elements such as the thick jungle bushes, corners and niches, junk cars, furniture which proved to be good places for hiding and playing.

● Children explore the elements and objects and pick up those of interest to create play activities. This is a form of imaginative play. Imaginative play consists of pretending to be driving a car, being a policeman and other such pretenses.

5.2.1(e) Back Alleys
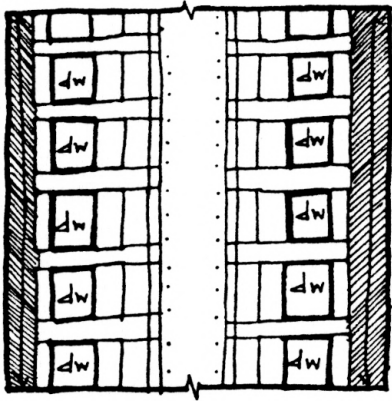
Fig.10 Location of back alleys

Illus.53 View of back

Physical Characteristics

- Since the dwellings and streets have been organized in a linear pattern the alleys follow the same.

- They are semi-public areas.

- The back alleys are located between two rows of backyards.

- These spaces are paved but have many broken patches and so they are not smooth.

- Occasionally a couple of cars pass through it.

- Plenty of junk is found along the entire back alley.

Play Activities

Approximate number of children playing: 3-4.

Most Frequent

Winter

- No winter activities were observed.

Spring

- Playing with balls and kicking them to friends along the linear path of the alleys as well as across the backyards was observed many times.

- With all the junk lying around children in the back alleys spent most of their time looking

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through it, playing and creative their own play activities and equipments.

Less Frequent

Winter

● No winter activities were observed.

Spring

● Sometimes children played running games. This was possible due to less traffic.

5.2.1(f) Sideyards
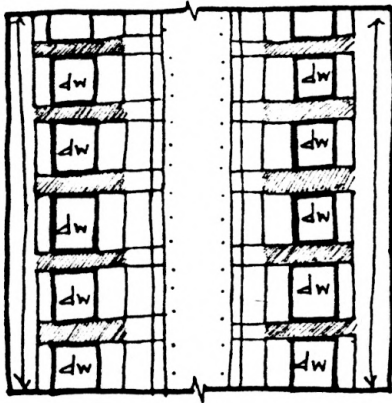
Fig.11 Location of sideyards-I

Illus.54 View of Sideyards

Physical characteristics

● Sideyards are semi-private spaces.

● Within this particular neighborhood they were shared by the two houses located on its sides.

● The approximate average width of the sideyard was about 10'.

● Not many activities were observed in this area. This may be due to several reasons one being the availability of better spaces such as the front yards and backyards.

● Sideyards are linear spaces of land that act as a linkage between the front and the back spaces.

● Some houses had their sideyards paved while some did not. This gave an opportunity for a variety in different experiences for children.

Play activities

Approximate number of children playing: 3-4.

Illus.55 Safe spaces with lots of natural materials lying around.

Most Frequent

Winter

● The only winter activity observed was playing with snowballs.

Spring

● Many children were observed running in and out of these spaces, to and from the back and front spaces.

● Being enclosed on two sides and covered with bushes, activities like hide and seek took place frequently.

● This was another space where junk and natural materials were easily found. During the observations it was found that children were attracted to such natural and unwanted materials more than their toys.

Less Frequent

Winter

● No other winter activities were observed.

Spring

● The side walls of the house were used to hit balls against.

● The driveway continued onto the sideyards which was why sometimes cars were found parked there. These cars also become a play equipment. Children would climb cars and pretend to be drivers.

The observation of the six types of unplanned spaces within this neighborhood describe the play activities which took place during winter and spring. The most frequent activities that were found during winter was building of snowmen and playing with snowballs. But not many children were observed playing outdoors when there was no snow on the ground. A couple of times few children were engaged in inactive play within the frontyards and sidewalks of this neighborhood. During spring, the frontyards, sidewalks, and backyards were the spaces where most of the play activities were found. Skateboarding on sidewalks, games with rules in the frontyards, constructional play and play with natural materials in the backyards were most frequently observed. The streets spaces were comparatively dangerous and hence was not a popular play space. Children of all ages were observed playing outdoors.

5.2.2 STRENGTHS AND WEAKNESSES OF NEIGHBORHOOD I

Strengths

• There is a lot of life with other activities such as traffic, people exercising and socializing going on along with children's play activities.

• Interaction amongst neighbors happens often.

• There are plenty of trees planted along the street sides which provide shade and can thus lead to more play opportunities.

• Natural materials are easy to find.

• The front porch of dwellings is a good space to play and be within and still be a part of the outdoor activities.

• Supervision of neighboring house holds is possible.

Weaknesses

• Traffic is a major problem. Parking on both sides of the street along with a two way traffic in progress creates a tight situation.

• Back alleys may be dangerous to play in during the late evening hours.

• Fear of dangers of the urban life like accidents, kidnapping, etc. may be higher than the other two neighborhoods.

5.3 NEIGHBORHOOD II - (Cul-de-sacs)

The second type of neighborhood selected was from the western part of the city. Within this part of the residential area, streets that ended in cul-de-sacs and dead ends was the basic type of environment to be studied. These are the areas which are parts of growing Manhattan - the new city area. The architectural characteristics of the houses, the neighborhood layout, the spaces and the form are different than neighborhood I. Their characteristics are more contemporary.

From the western part of the city, the area selected was Musil Street which forks from Hudson Avenue, turns into Haas circle which finally ends as a cul-de-sac. A few cul-de-sacs from the nearby areas with similar situations were observed. This area has almost every other street meeting or ending in this manner. For example:- Park Circle, Cloud Circle, etc. The reason for choosing the selected site
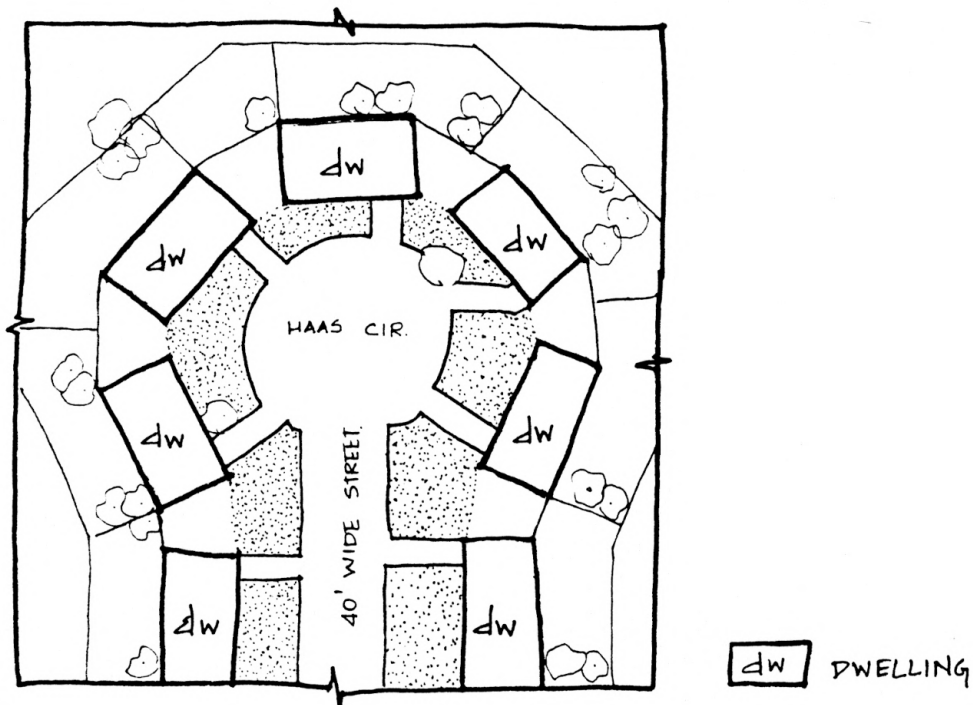

Fig.12 Character of Neighborhood II

Map.3 Neighborhood Plan II

Illus.56 Neighborhood II - Haas Circle

street had a good number of children playing which would be fruitful for the research. First was the same reason as written previously - during the pilot observations this of all, a look at the streets and the topography shows that the road follows the contour of the land. Residents may enjoy living on streets which are not on a similar level. They may even like it when their streets do not become thorough streets thus giving an opportunity for more privacy and less traffic. The street space is linear but not straight. They curve around hence obstructing a direct view through the length of the entire street. The roads that turn, give a feeling of surprise as to what kind of spaces would be found next. It forces one to move further down and explore all that lies ahead.

The streets are wider than that of the first neighborhood. They also look much wider because there does not exist a continuous two sided parking. The approximate width of the street is 40'. The approximate distance between the houses is 15'. This space between two houses makes the sideyards. Within this type of neighborhood there exist no back alleys or streets. The backyard of each house has common fencing between a group of two or more houses.

Taking a look at the characteristics of the houses, each house is unique in its own different way. At the same time, they all have some similar characteristic features. All houses within this area have garages. Some of them have two space garages while others have only one. Cars are thus normally found to be parked within the garage spaces or on the drive ways. It thus reduces the amount of parking on the roadside, which again is the reason for the feeling of openness of the road space. Most of the garages have a basketball goal fixed on the wall over the garage doors. The driveways are paved and slope down into the roads. Like all other houses in the city, the houses in this neighborhood have frontyards which are well maintained and landscaped. These areas give a feeling of enclosure yet from this space one can have a view of the open frontyards as well as the backyards. The main entrances into the houses no longer have front porches, but instead have a flight of steps which lead to the landing at the front entrance door.

5.3.1 Observations of Neighborhood II

A cul-de-sac is a street or a lane with a dead end. Taking a look at Manhattan city map (Map.1 and 3) it was obvious how many streets/lanes situated to the west of the city stopped

abruptly. The site chosen for the research was Musil Drive with Haas Circle and Frontier Circle forking off of it as cul-de-sacs. Just like the other neighborhoods, children were observed playing in various spaces which have been categorized and described in form of their physical characteristics and play activities.

5.3.1(a) Sidewalks

There has been a very interesting observation. Surprisingly no pedestrian paths which could be defined as 'sidewalks' existed within this neighborhood, yet there doesn't seem to be a need for these spaces. This may be due to less traffic passing through and the width of streets and frontyards being more than the first neighborhood. The study of this neighborhood hence does not include 'sidewalks' as a play space.
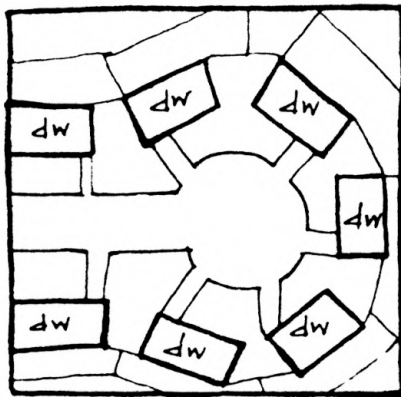
Fig.13 Location of sidewalks-II
(no sidewalks exist)

Illus.57 No 'sidewalks' exist.

5.3.1(b) Streets

Streets form the fabric of the city. The character of a city or a neighborhood at a large scale depends/is influenced by the layout of the street network. They enhance the circulation, the movement and the rhythm of each area. All this may directly or indirectly affect the lifestyles of people, and of course the play of children. This neighborhood selected is quite different in its surroundings, especially the streets. The streets follow a different movement. The primary streets form a large grid pattern, but the residential streets begin to curve into one another and the subsidiary streets end as cul-de-sacs. So is the case with the selected site. Its

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characteristics and play activities have been discussed below.
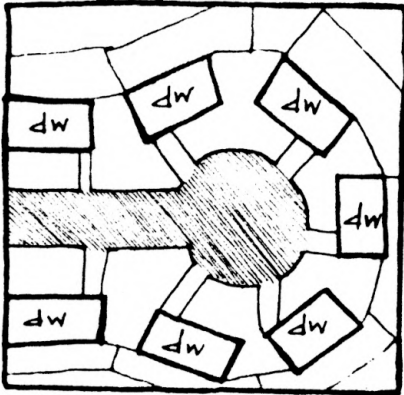
Fig.14 Location of streets-II
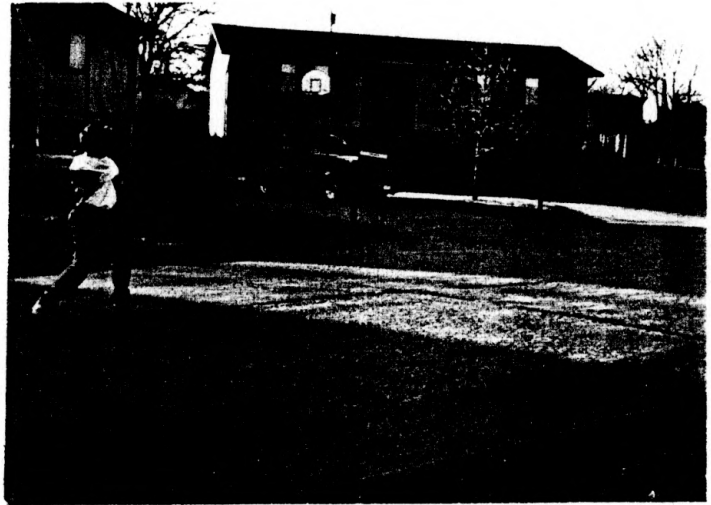
Illus.58 Street sides have no cars parked

Physical characteristics

● Situated within the western region of the city, the dwellings are laid around the streets and cul-de-sacs, which do not strictly follow a grid iron pattern.

● The streets here were much wider, approximately 40' wide. Their surface was tarred and sloped according to the topography of the ground.

● The cul-de-sac formed at the end of the street had a radius of about 45'-50' so as to easily allow a car to take a U-turn.

● Musil Drive forks off of Hudson Avenue. It intersects with Haas Circle which runs straight and turns into a cul-de-sac. Around 30 houses were located along this drive.

● One of the most distinct feature was the absence of cars parked along the roadside. If there happened to be a car parked, it would usually belonged to a visitor.

● Vehicular traffic was considerably much less with approximately 2-3 cars passing by in a minute.

● Blind spots were not encountered often because the road was wide enough with no street side parking.

● Driveways leading into individual garages fell straight into the streets.

● Trees and bushes were planted more towards the house and so did not form an avenue as studied in the first neighborhood. The streets did not follow a linear pattern all the way nor did they have trees along the street sides.

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• Fire hydrants and light poles were found on one side of the street at regular intervals.

<u>Play activities</u>

Approximate number of children playing: 10-12.

Unlike the earlier neighborhood, traffic was not a major activity of the street. Children were observed playing here more than that in the streets of the first neighborhood.

<u>Most Frequent</u>

Winter

• During winter children here were engaged usually in inactive play such as sweet nothings.

Spring

• Baseball was a major activity found within these spaces. The linear street space forms a good area for providing a distance between the batsman and the pitcher. The nearby frontyards became the field area. This was a game where the built form became essential elements for limits of the play field.

• Just as on all the other streets, cycling was an activity which stayed on the roads. Almost all streets within a residential area are used for cycling. The age group that indulges into this activity is 6 to 11 years. While the younger age group cycles/tricycles near their respective houses,in the frontyards (illus.61).

• American children, especially the boys, are known for their skateboard skills. Streets, being linear spaces are ideal for this activity (illus.64).

• Running games were favorite activities observed within this neighborhood. This may be due to the vastness of this space and amount of traffic (illus.59).

<u>Less Frequent</u>

Winter

• No other winter activities were observed.

Spring

• Quiet play activities like taking pets for a walk, socializing with peers, sitting and observing the activities around were also observed.

• Skipping ropes in groups was observed once.

Play Activities on Streets - Neighborhood II

Illus.59 Feeling of openness.

Illus.60 Play with pets.

Illus.61 Cycling on streets.

Illus.62 No fear playing all over streets
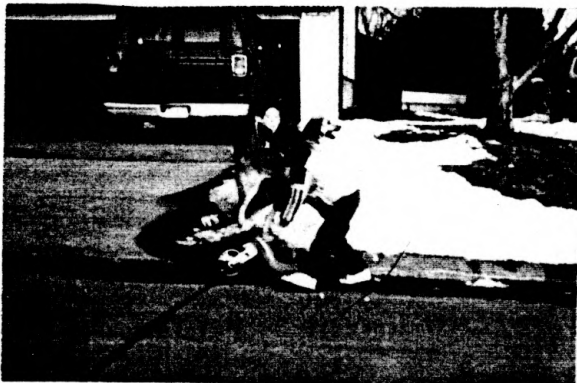
Illus.63 Street side play

Illus.64 Skateboarding on streets.

73
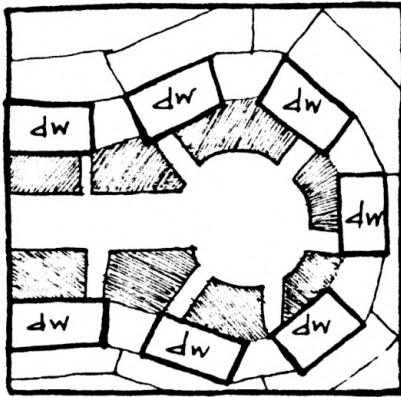
5.3.1(c) Frontyards

Fig.15 Location of frontyards-I
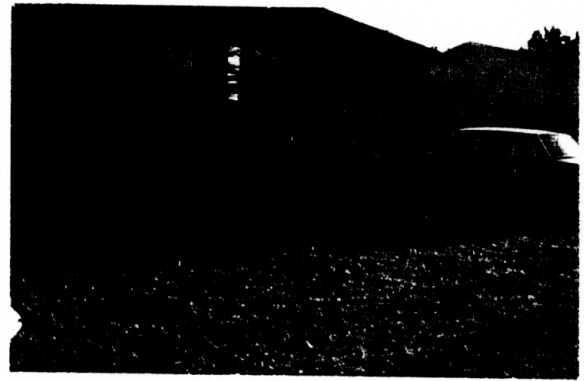
Illus.65 View of Frontyards.

Physical characteristics

● Compared to the first neighborhood, the frontyards seem to be larger open spaces. With the absence of sidewalks, the frontyards extend right onto the street curbs.

● The continuity of these spaces was broken by the individual driveways.

● The depth, approximately 20', was more than the first neighborhood.

● The driveways led into the garage spaces (illus.66). Usually each house had a two car garage space and hence the width of the driveway increased.

● The architecture of houses change some of the elements and the design of frontyards. Unlike the earlier neighborhood, here the houses did not have porches where people could sit and enjoy the street activities. Instead there were a few steps which directly lead to the front door.

● They were very safe areas and could be observed mostly by all the houses located around that cul-de-sac. Parents may prefer children to play within the frontyards spaces rather than the streets for easy supervision.

● Frontyard spaces were lawned, well-maintained by individuals. The driveways were paved and sloped down towards the streets (illus.65).

● Trees were rarely found within these spaces. Sometimes a couple of them were located near the houses. Bushes were planted too but most of the plantation was found within the backyards.

● The topography was not absolutely flat. It sloped gradually upwards from the street curbs towards the houses.

<u>Play activities</u>

Approximate number of children playing: 8-10.

As seen in the physical characteristics these spaces are open spaces with less obstructions and hence one has more freedom to play. Within the frontyards the driveway spaces were found to be the most used of all spaces for play activities.

<u>Most Frequent</u>

Winter

● The activity of building snowmen, playing with snowballs were observed often (illus.69).

Spring

● Basketball was a favorite activity amongst children of all ages. The garage door became an easy access into and out of the houses. Many play equipments were stored here and so the garage area became an ideal spot for many other play activities (illus.66).

● Some children were playing with their toy guns and pretending to catch the thief. Imaginary play including actions of killing, shooting, being the boss etc. were adapted from the world events they observe. Boys would play games with actions of fighting and catching each other while the girls were found to be pretending themselves to be parents (illus.68).

● The open space gave rise to play activities such as running games (illus.67).

● Children from an age group of three to four years find junk and natural materials very interesting. They bend down and pick up whatever they find attractive. They soon understand and learn how to use those materials and objects.

● Hopscotch was observed on the paved areas (illus.70).

<u>Less Frequent</u>

Winter

● When the snow falls these spaces are covered up. The children help their parents clean the driveways. Some were found to be making snowballs and playing with them.

● Older children (7-11 years) would slide on the slippery ice and enjoy the risk of falling down.

Spring

● Most of the play activities observed had play equipment used.

● Near this space was a small playground where children were playing similar activities.

● Children from the houses located on the cul-de-sac would get together and play here as if it were one whole space showing they had the feeling of a sense of belonging.
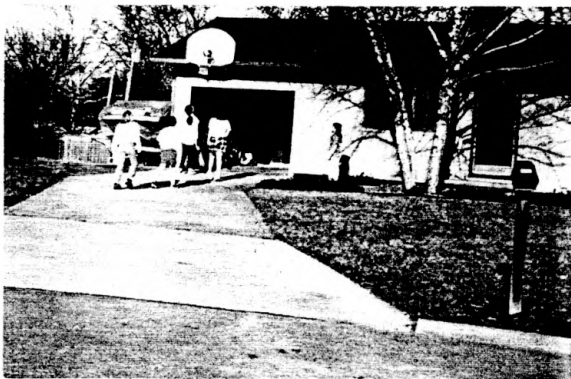
<u>Illus.66</u> Driveways or mini Basketball Courts

<u>Illus.67</u> Running Games
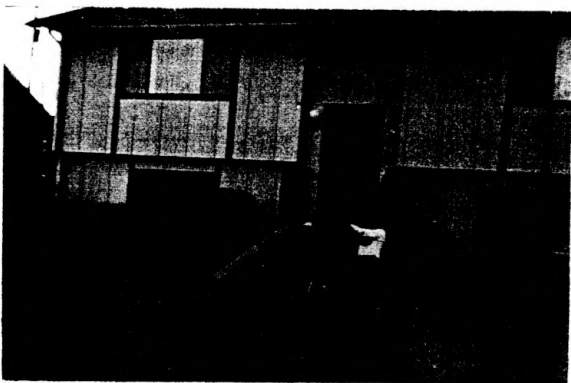
<u>Illus.68</u> Vast front open space-

Freedom to any Activity

<u>Illus.69</u> Ready to make a snowman?
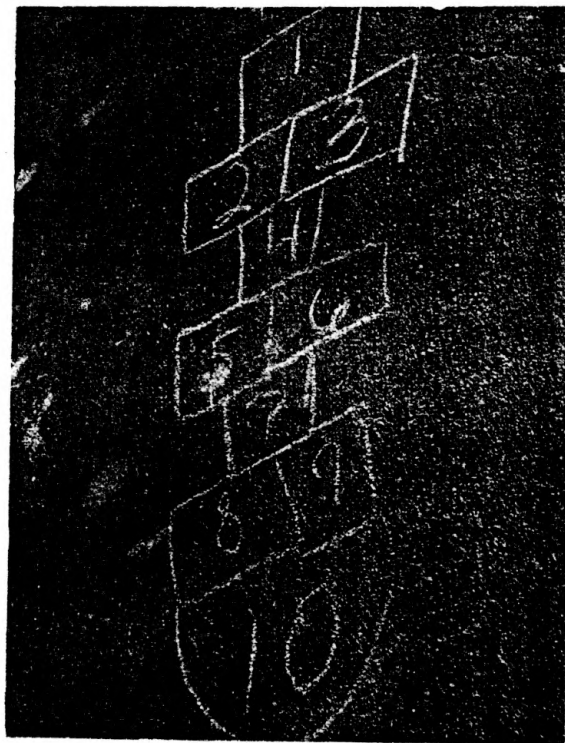
<u>Illus.70</u> Hopscotch on paved areas.

5.3.1(d) Backyards
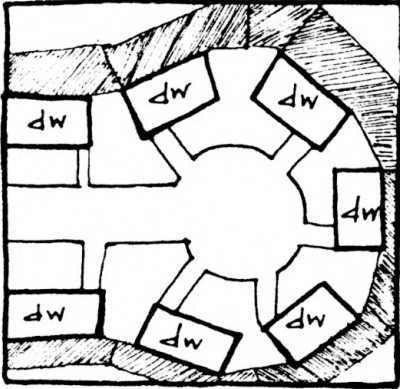
Fig.16 Location of backyards-II
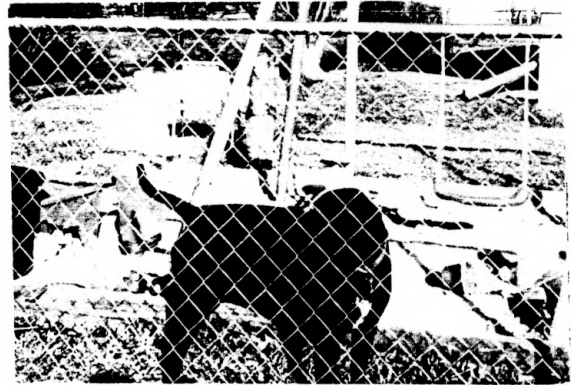
Illus.71 View of Backyards

Physical characteristics

● The backyard spaces were private areas. They were accessible only from the back doors or through a fencing which had to be crossed from the sideyards.

● From the frontyards the backyards were not very easily seen.

● The backyards of adjacent houses have common fences. There exist no back alleys.

● From the streets some of the backyards were observed. Like all other similar areas these spaces were used as small playgrounds, for gatherings, family activities and also for storage of certain commodities.

● Tree plantations were found. Natural materials like sand, stones, sticks, junk etc. were all available. Some houses had pet houses in the backyards.

● It was found to be a safe place but away from the street activities.

Play Activities

Approximate number of children playing: 1-2.

In this neighborhood, the backyards were not really visible nor were they accessible from any of the front spaces. This made them private areas which were fenced around and where trespassing could become a grave issue. Due to this, not many play activities were observed. Observations were made from the streets only of those backyards which were visible from there.

<u>Most Frequent</u>

Winter

● The only winter activity of building snowmen was observed.

Spring

● Hide and seek was a common activity. The bushes, trees, storage boxes, became good play elements.

● Playing with ball and rackets were observed frequently.

● Most of the times the children were playing with their friends in one of the backyards.

● Running games was also observed. Children of younger age groups (3-5) were found to engage themselves into silent play activities.

<u>Less Frequent</u>

Winter

● No other winter activity was observed.

Spring

● Toddlers played within the homemade sand pits.

● Most of the backyards had water taps. Water, became an essential part of their play. Especially in hot climatic conditions play activities revolved around water taps.

5.3.1(e) Back Alleys

Looking at figure 12 on page 67 it can be seen that the backyards of dwellings share common fencing. There exists no space between backyards. In this neighborhood no such space that can be defined as 'back alleys' is found and hence it has not been studied as a category of play space.

5.3.1(f) Sideyards
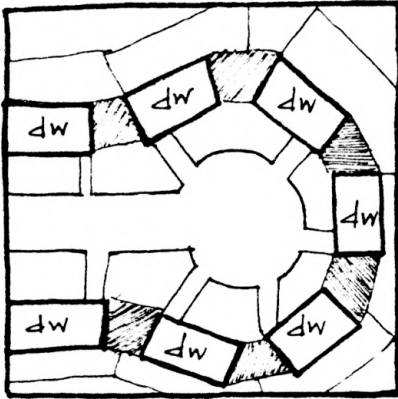
Fig.17 Location of sideyards-II

Illus.72 View of Sideyards

Illus.73 Sideyards - a transition space between front and back spaces.

Physical characteristics

Taking a look at the physical characteristics of the sideyards not much of a difference was noticed between these sideyards and sideyards of the first neighborhood.

● The space was linear, approximately 15' wide and located between two buildings.

● It could be defined as the space linking the frontyards to the backyards. In this neighborhood there existed a fence which had to be crossed in order to be within this space.

● A few houses had water taps located within this space.

Play Activities

Approximate number of children playing: 4-6.

<u>Most Frequent</u>

Winter

● Playing with snowballs was observed amongst toddlers.

Spring

● As described to be a linear space, it was observed that some children used this place to play baseball and other ball games.

● Hide and seek was a popular game played here by many girls.

● Like in the backyards, a water tap and hose were easily available but during all the site visits, playing with these objects was never observed. In fact children were found with buckets full of water and found it easier to play with their toys.

<u>Less Frequent</u>

Winter

● Sometimes children helped adults shovel snow to clear up the spaces.

Spring

● Many children found this space to be a cozy, narrow space to have child-like gatherings and relaxing fun moments. It was a space where they could be away from direct visual access from most of the houses, yet be near their dwellings.

● The sideyards are used as a transition link between other areas- spaces where children could run into and out of the backyards (illus.73).

Out of the six types of spaces classified for the study, two types namely, the sidewalks and the back alleys were not found. As seen in the observations, the most popular winter play activities within the other spaces were snowman building, shovelling and sometimes sweet nothings. But during spring many different play activities were found. The common activity within all the spaces was play with ball. different kinds of ball games were played in different spaces. The street spaces being linear had baseball as a popular activity, while in the frontyards with the garage space basketball was a favorite activity and within the side yards and backyards other ball games were played. The other most frequent activities found were cycling, skateboarding, hopscotch and imaginative play. The streets and frontyards were the most popular play spaces.

5.3.2 STRENGTHS AND WEAKNESSES OF NEIGHBORHOOD II

Strengths

- The streets forming into a cul-de-sac provides more safety to the neighborhood from traffic as well as the 'outsiders'.

- The street acts as a common playground with a hard surface.

- Children feel free to perform activities in this neighborhood.

- Parents may not have to worry about the possible accidents when their children are playing outside.

- The presence of garage spaces provide an opportunity to many play activities such as basketball which otherwise might have been impossible.

Weaknesses

- There are hardly any trees planted around the spaces to the front of dwellings. Hence the possibility of having shaded areas as well as opportunity for play with nature is reduced.

- A cul-de-sac does provide safety but it closes the possibility of many other street and public activities which children would love to be a part of.

- The dwellings of this neighborhood do not have front porches as in the first neighborhood. This may be a major drawback as it no longer provides a larger semi-private area where adults as well as children could sit and be a part of the outdoor activities.

A brief example to show simple improvements towards providing better play opportunities for this neighborhood is given in chapter 7.

5.4 NEIGHBORHOOD III - (Townhouse Complex)

The third type of neighborhood selected is different from the other two. Situated in the north eastern part of Manhattan is a town house complex called Prairie Glen. Residential town houses are a group of buildings with two storey apartments within a complex. Off highway K-177, and to its east is situated the Prairie Glen which opens on Allen Road. The entrances as well as the exits are from this street. The planning of this complex is quite interesting and it creates an environment which gives a sense of belonging. The buildings are organized around a central common space which is usually the parking lot. The rear side of the buildings face the backyards which again are common open spaces. The entire space of backyards designated to individual houses continues and joins as one whole space with no obstructions at all. Most of the houses have already enclosed some of the space as their own private spaces. But a huge common strip between all houses sharing that space is still there.

The so-called street spaces within the complex are approximately 20'-25' wide. In certain areas within the complex there are two sided parking while the others were observed
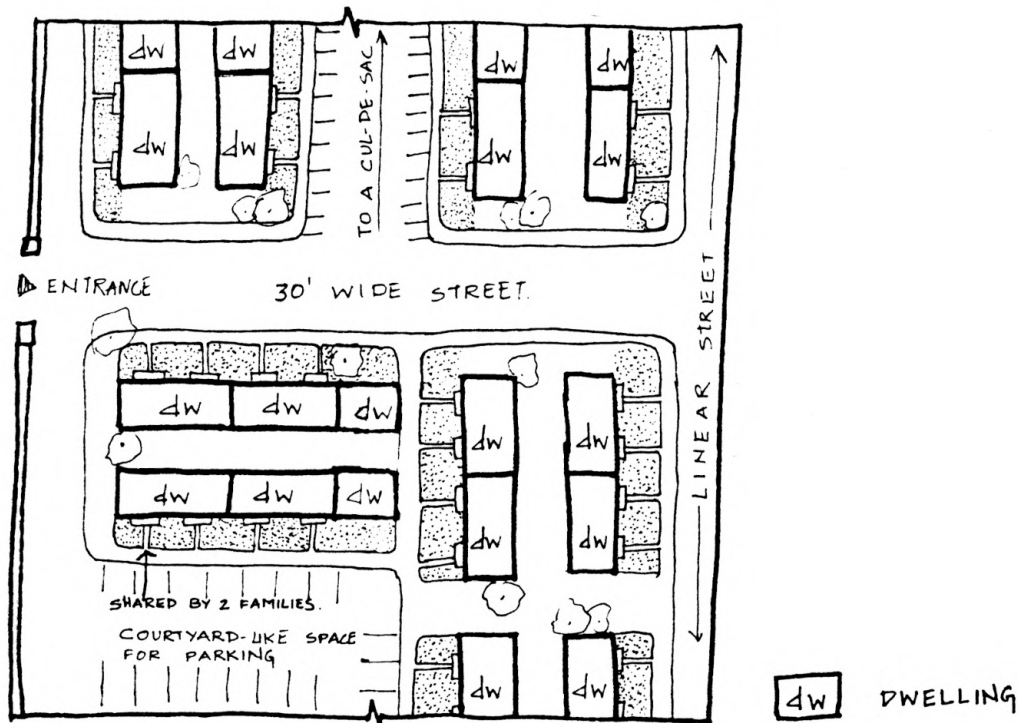

Fig.18 Character of Neighborhood III
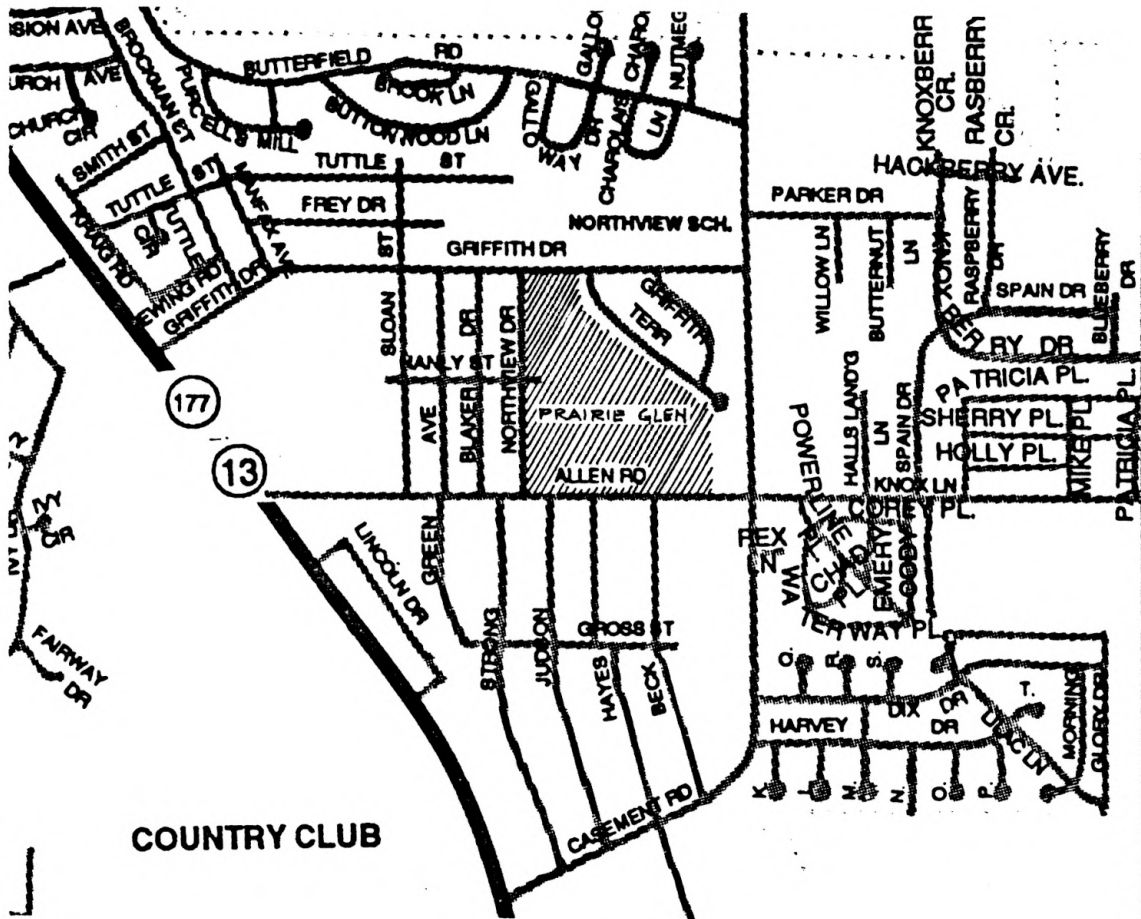
Map.4 Neighborhood Plan III - Town Houses

Illus.74 Neighborhood III - Prairie Glen (town houses).

to have had central parking. The apartment buildings do not have individual garages. At times the streets enter into courtyards or parking lots while other times they end up as dead ends. But the most interesting and important fact about these inner streets are that they are not public streets or thoroughfares. They are streets which are not used by the passer-by. Hence, the amount of traffic using these spaces is considerably reduced.

The houses have no porches, but like the second neighborhood, they have a few steps leading from the sidewalks to the front door. The facade is quite flat and so is the roof. The facade with a brick siding has a repetition of similar doors and windows throughout the building. Each apartment building is the same in its design and layout but its orientation on site is different. Between a few buildings are common playgrounds. There are three major entrances into the entire complex. The spaces formed by the built form are safe giving rise to a totally different environment. It was also observed that interaction with neighbors was more than the other two neighborhoods. Common spaces, common parking lots, common backyards etc. are all factors which help towards socializing, meeting other people and interacting with them.

In this neighborhood, within all the kinds of spaces described there are various kinds of day to day activities taking place. Not much privacy is found outside each apartment as most of the spaces are common. But again such spaces make a place and the environment more friendly and lively and thus fruitful for each individual. The backyards were observed to be more lively and active than the front spaces. This is unlike the other neighborhoods. There were all kinds of activities taking place such as children playing, elders barbecuing, some working while others were relaxing. Trees are scant but the shadows of the buildings kept the backyard in shade for most of the day. Each house has its own frontyard and also a backyard area which can give privacy if it were needed.

5.4.1 Observations of Neighborhood III

Prairie Glen is a small neighborhood which is made up of several apartments known as townhouses. The neighborhood has already been described in the earlier chapters and so in this section of the chapter, only the physical characteristics and the play activities of the categorized spaces observed shall be discussed.

5.4.1(a) Sidewalks
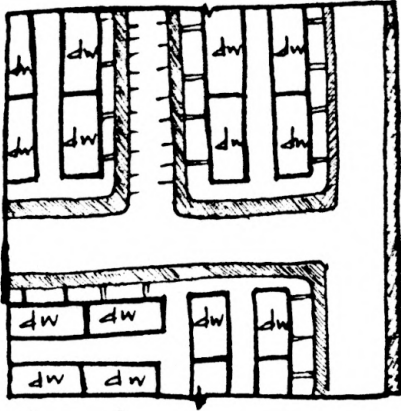
Fig.19 Location of sidewalks-III
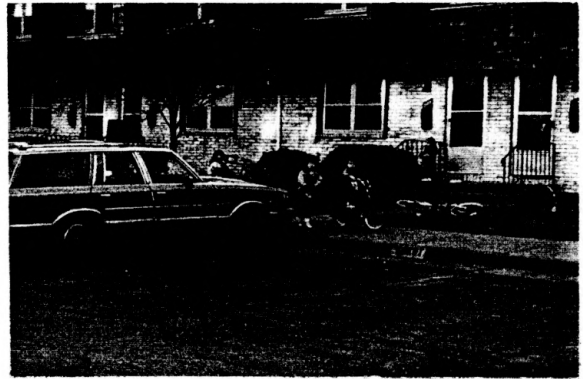
Illus.75 View of Sidewalks

Physical Characteristics

● The layout of this neighborhood is quite different from the earlier two studied. The sidewalks define a different relationship between the streets and the frontyards.

● The curb was about 6" above the street level and the sidewalk was about 3' feet wide.

● In the first neighborhood, the sidewalk was located between two patches
of linear green strips and then adjacent to it were the streets. While in this neighborhood, right next to the streets were the sidewalks and then a linear green strip which was the frontyards for those houses.

● The sidewalk here, was a continuous linear strip which was not broken up by individual driveways.

● They move along the placement of the houses, turning whenever the orientation of a building changed.

● Since the sidewalks are directly adjacent to the streets, trees planted along to form an avenue did not exist.

● Sometimes a part of the sidewalk was covered up by the car parked in its lot.

● Unlike the other neighborhoods studied the mailboxes were situated on the exterior wall of the building near individual entrance doors rather than on sidewalks.

Play Activities

Approximate number of children playing: 10-12.

All the categorized spaces existed here just as in the others, but this neighborhood was found to be more lively and active. This could probably be that it had a higher percentage of children residing there. But another possible reason may be due to the fact that it was a safer environment and the complex portrayed a feeling of belonging with its fence around the entire complex. Security guards and the fencing give a feeling of closeness and safety. Being a paved area many play activities which could be found on the streets were also found on the sidewalks. The sidewalks were like common frontyards spaces for children.

<u>Most Frequent</u>

Winter

● Children played with shovels and pretended them to be broom sticks. The also helped adults shovel the sidewalks.

Spring

● The most popular activity observed within this space was cycling. No matter whatever age group, children were on these wheels (illus.79).

● Its continuous linear form made it easier and worry free for the children to roller skate.

● Many were found to be fascinated by all the cars parked near the sidewalks as they ran around, climbed them and pretended to drive.

● Some were balancing on street curbs, sitting on sidewalks, and observing other activities.

● Not only was active play observed, but so was inactive play like sweet nothings- wandering on aimlessly, singing, exploring nature, life and themselves (Illus.77).

<u>Less Frequent</u>

Winter

● Snowball throwing was observed among children of 7-11 years.

Spring

● Children from an age group of 8-11 years played with complex toy equipments, remote control toys, etc. along with their peers (illus.80).

● Junk and natural materials like sticks and stones, sand and mud were more attractive to the younger age group. They were found to be squatting on the sidewalks to experience their junk and create various play types, may it be pretence, imaginative or constructive.

● Goal posts for basketball were not found here or in any if the frontyard spaces. But children were noticed playing with balls, dribbling and competing with friends (illus.76).

Illus.76 Playing with balls.

Illus.77 Sweet Nothings.

Illus.78 Group Play

Illus.79 Cycling on sidewalks.

Illus.80 Play with remote control toys.
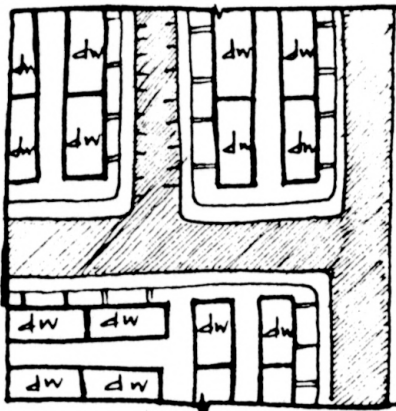
Fig.20 Location of streets-III

Illus.81 View of streets

<u>Physical Characteristics</u>

● Just as in any other street, the streets of this neighborhood were tarred, smooth and linear.

● Here some of the streets act as cul-de-sacs while some curve around the neighborhood. In short, various street types were found here. It was like a combination of the streets of the earlier two neighborhoods studied.

● This neighborhood had primary streets and secondary streets. The secondary streets were cul-de-sacs and had cars parked along the street sides. The primary streets linked each cul-de-sac to another within the entire neighborhood.

● The neighborhood had three entrance gates where security guards were located.

● These spaces were approximately 25'-30' wide, when they ended as cul-de-sacs and were 30'-35' wide when they were through streets.

● The cars parked along the street sides were perpendicular to the length of the street. The parking lots are not included within the width of the street space.

● Along the street sides, at regular intervals, were located rain water drainage systems.

● Street lights form the major street furniture.

● Traffic was scant. Most of the times observations were made, there were very few cars which passed by.

<u>Play Activities</u>

Approximate number of children playing: 6-8

The major activity observed was human activity which consisted of all kinds of interesting things. Adults and children of all age groups use this space extensively.

<u>Most Frequent</u>

Winter

● The only winter play activities observed in this neighborhood was inactive play. Some children walked along with their toys, while some sat with their friends and talked.

Spring

● Their play activities observed were like those on any other street. Cycling was the most popular and frequently observed of all play. But children of an age group of 8-11 years were the majority of the cyclists found on the streets (illus.82).

● Another activity on wheels was that of skateboards. The streets here were not always linear so it was a good space for challenges and learning skills. Moreover, right next to it, 6" above the street level were the paved sidewalks. This gave them a chance to skateboard and jump from one level to another making play more and more interesting and challenging.

● Wandering in the streets with friends was a fun pastime.

<u>Less Frequent</u>

Winter

● No other winter activities were observed.

Spring

● Racing, balancing finding new tricks and observing children exploring their skills was interesting.

● Socializing is important for children as much as it is for adults and streets were found to be the best places for this. They are the common open front spaces enhancing social activities where families meet and interact as they move from indoors to outdoors and vise versa giving everyone a chance to get to know one another.

● Many times children would choose a street any where in the neighborhood (especially near their homes depending on the age group) , give it end limits, apply rules and play games like hide and seek. Elements like bushes, trees, cars, garbage bins, etc. made wonderful hiding places.

Illus.82 Cycling - the most popular street activity

5.4.1(c) Frontyards
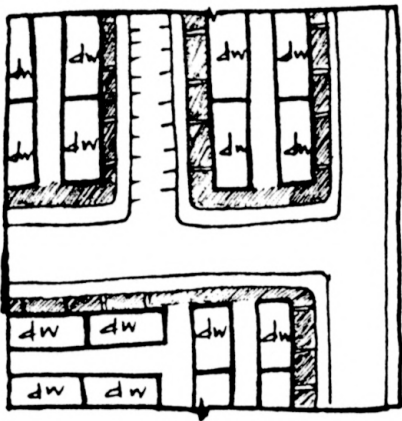
Fig.21 Location of frontyards-III

Illus.83 Doorstep Play and landing shared by two families.

Physical characteristics

● The frontyards of this residential neighborho.od were not large spaces but and were about 8'-10' deep.

● They followed the flow of the street and the built form.

● Overall, these spaces formed a continuous strip which was broken up by individual entrance walkways to the houses.

● They were lawned, well-maintained and landscaped.

● Trees were planted more towards the houses than the sidewalks.

● According to the planning/design of the apartments each walkway leading to a common landing was shared by two families.

● The walkway led to a small flight of steps which was about 6' wide having railings on both sides. The landing, about 4' deep and 6' wide, served as a front porch.

● Each building block had six apartments.

● Personal belongings were sometimes found lying around within these spaces. There were some children who had their bicycles parked and locked to the railings.

● Basement window sills fell on the ground level of the frontyards.

<u>Play Activities</u>

Approximate number of children playing: 2-3.

In the above description, it was mentioned that the landing space, at the entrance door acts as a front porch where everyone likes to be in. Adults would meet their friends and neighbors, so do the children.

<u>Most Frequent</u>

Winter

● Children of an age group of 5-8 years were playing with snow and building a snowman.

Spring

● The steps, which were a few and long in width, provided a very nice situation for friendly gatherings. Inactive play along with other quiet such as board games were performed within these spaces.

● Often children would squat themselves on the landing spaces and observe other activities until they got into the mood for active play.

● The railings on the sides of the steps could never miss a child's attention. Jumping on steps, sliding down the rails, climbing up the slope of the railings, peeking through doors and windows of neighbors were many of the play activities observed.

<u>Less Frequent</u>

Winter

● Older children 8-11 years were observed playing with the snow as they shovelled.

Spring

● Since this space was lawned, children were found to be playing on the grass, looking for something.

● A couple of times it was found that children enjoyed helping elders with their chores giving them a feeling of being accepted in the adult world.

5.4.1(d) Backyards

Of all the spaces within this neighborhood, the backyards were the liveliest, most used, and most liked by all age groups.
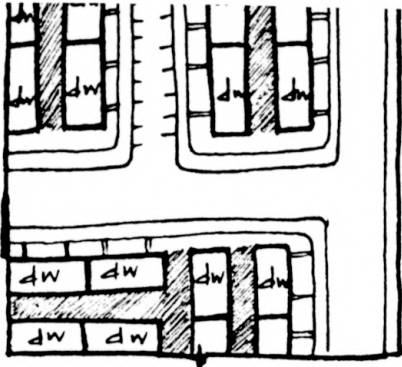
Fig.22 Location of backyards-III
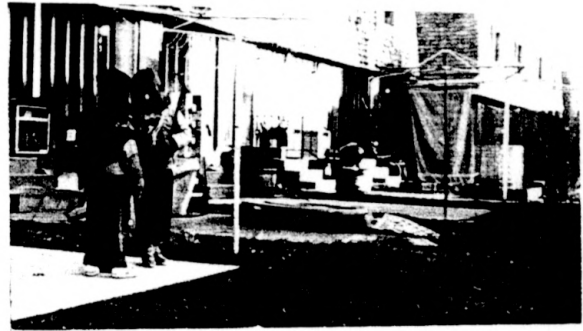
Illus.84 View of Backyards

Physical Characteristics

● The basic layout of this neighborhood lies on the concept of having the frontyards of the building blocks face each other and also the backyards of several buildings.

● The backyards thus formed wide open space shared by a couple of buildings and many families.

● From the back door of one block, horizontally to that of another it covered a distance of about 55' out of which 25' was used as private spaces. This left a luxurious 30' as a common backyard space which had the form of a back alley.

● However, it was entirely different from a back alley as it was lawned and well maintained.

● The space was long and linear normally had the length of four buildings put along together (illus.90).

● Each personal individual space was paved hence, separated itself from the common grounds.

● Some individuals had their personal backyards fenced up with a gate giving access into the common spaces. This gave a chance to have privacy as well as be within the public spaces (illus.89).

● Barbecue stands, work sheds, doghouses, junk storage, play equipment, swimming pools, cloth dryers, trash cans, etc. were various objects and elements found here (illus.87).

● At one end of the space the ground was sanded and benches were placed around with swings creating a mini playground (illus.88).

● Not many trees were planted. However, most of the time of the day this space had shaded areas.

● At the end of the entire complex were located larger playgrounds fenced away on all four sides.

93

<u>Play Activities</u>

Approximate number of children playing: 12-15.

Due to the nature of the ground, no play activities with wheels were observed even though it was found to be a lively space with rich experiences for children.

<u>Most Frequent</u>

Winter

● The backyards were like common spaces. Children of all age groups here got together to build snowmen.

Spring

● The most frequent activity observed during most of the site visits was baseball. The linear form as well as the width of the space in its environment made it a popular activity for children between 7-11 years (illus.86).

● Groups of children were observed to be playing soccer and creating different ways to play with a ball. This proved that children can develop their creativity through play activities. Other ball games like Dodge was observed too (illus.85).

● As always described, jumping around, running without any fear of traffic, always in a space for easy supervision, allowed children to be free in their expressions.

● All activities observed were not always active play but some inactive play like drawing, reading, talking and sweet nothings was also observed. It becomes a part of their intelligent play (illus.84).

<u>Less Frequent</u>

Winter

● No other winter activities were observed.

Spring

● The fencing around some private backyard spaces was 6' to 7' high. They were used as good hiding places and run away spaces. It also served
as a wall for hitting balls against (illus.89).

● Another interesting observation, was that of a girl who was trying to balance walk over a stick laid on the ground. It seemed as if she was learning about the structure of the stick and thus about the different shapes existing in nature (illus.87).

● Some children were found playing in the playgrounds located at the end of the neighborhood.

Illus.85 Ball Games
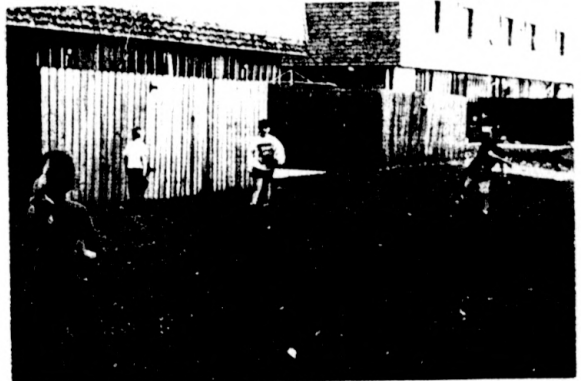
Illus.86 Baseball
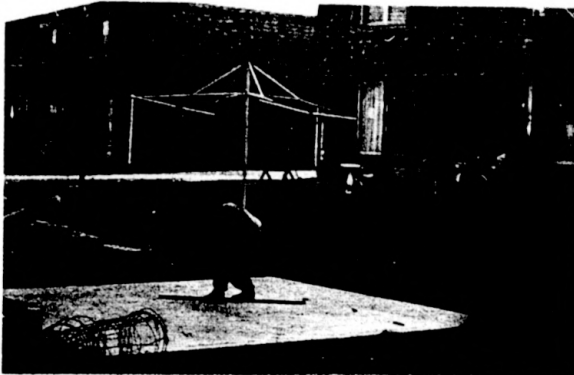
Illus.87 Play with sticks
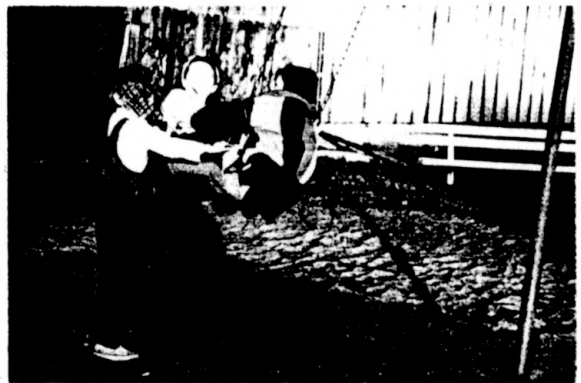
Illus.88 Swinging with friends

Illus.89 Private and common backyards.

Illus.90 They are long linear spaces.

5.4.1(e) Back Alleys

The backyards of this neighborhood forms on whole linear space and has been considered as a common space. A space which can be defined as back alleys does not exist and hence has not been studied.

5.4.1(f) Sideyards

Due to the layout of the apartment blocks in this neighborhood, there was no space which could be designated as 'sideyards'. Hence it has not been studied.

In this neighborhood, two of the six play spaces do not exist. They are the back alleys and the sideyards. Just as in neighborhood I and II, the most popular winter play activities were snowman building and snow ball throwing. During spring, the backyards were found to be a popular play space. Spring activities such as cycling, ball games, skating, sweet nothings and play with natural materials were most frequently observed. This neighborhood had a lot of 'life' within the backyards due its safety factor, the planning of the neighborhood and also the other activities that took place besides play.

5.4.2 STRENGTHS AND WEAKNESSES OF NEIGHBORHOOD III

Strengths

● This neighborhood is like a mini-town complex. It has a fence around the entire neighborhood which gives the residents a feeling of security. This is evident from the behavior of play activities of children.

● Activities performed show children's freedom of action as they cycle and move around the entire complex.

● The front steps are approximately six feet wide. This provides the residents with a opportunity to sit there and interact with each other.

● The traffic flow is very low, hence, allows children of all ages to run around freely from one building to another.

● This neighborhood is interesting because there are many other activities besides play taking place for children to be a part of.

● The backyard spaces are common areas and thus attracts more life and activities.

Weaknesses

● The frontyard spaces are only about 10' deep which is shared by two families and thus at times gets congested.

● The neighborhood has a playground next to it and thus activities like basketball are rarely played.

● Since the streets are very wide (30'-40') and parking is along the streets it sometimes becomes dangerous for children to cycle.

● Opportunities for play with the built environment like railings, steps are there but they are not quite safe due to the paved ground underneath.

● Due to the planning, families share common walls and common entrances. This reduces the level of privacy and increases the level of disturbances by neighbors.

As seen, all three neighborhoods have been described to understand their locations, layout, environment and the major activities encountered during the day. All three are different in their environment even though they are all residential areas with children playing. An effort was made to maintain the same level of density, income and traffic for all three neighborhoods. The first two were possible to control but it was difficult to keep the variable of traffic constant. Traffic depends on the type of street and its layout and these factors were different for each neighborhood.

LIST OF PLAY ACTIVITIES OBSERVED

Winter
- Snowman building
- Snowball throwing
- Sleighing
- Castle building
- Ploughing

Summer
- Swings/slides
- Cycling
- Basketball
- Skating
- Skateboard
- Skipping
- Water guns
- Remote control toys

Play w/rules
- Running games
- Tick Tack
- Hide and seek
- Ball games
- Hopscotch

Natural play
- Sticks/ stones
- Ropes
- Water play
- Play with leaves and sand
- Junk materials

With builtform
- Railings
- Fences
- Street curbs
- Fire hydrants
- Stairs
- Lightpoles
- Slopes

Work as play
- Construction and building
- Gardening
- Cleaning
- Running errands

Sweet nothings
- Sit and watch
- Day dream
- Patting a pet
- Feeling the sand

Work & no play
- Newspaper boys
- Baby sitters
- Car washers

"And we mistake

the things we see

for what they really are."

--Steven Smith

as quoted by Dargan, Amanda in City Play, p.106.

6

<u>COMPARISONS AND FINDINGS</u>

6.1 Comparisons and Analysis

6.2 Findings

6.1. COMPARISONS AND ANALYSIS

Manhattan, being a small city offers a variety of play opportunities unlike the other metropolitan cities where play opportunities are disappearing. The neighborhoods studied were quite different in nature and their offerings towards play opportunities for children were quite rich. This has been explained earlier. This city is not over populated, housing is not congested, scarcity of land is not a problem and traffic and crime problems are not grave issues. These are most of the factors which can be a major hinderance to providing a healthy environment for children to play and grow in. The city provides a healthy play environment but the growth of the city can never stop and so one must take measures, before it is too late, in order to sustain all that the city offers today to the children of Manhattan, Kansas.

Earlier the observations made were described along with reasoning wherever it was found required. In this part of the study, the observations of each space shall be compared among the three selected neighborhoods and analyzed in order to arrive at some basic conclusions as the findings of this research. It is interesting to see how play activities within the same space in each neighborhood, has different types of activities and patterns performed. The activities listed in the charts are in the order of activities occurring frequently. The second part of this chapter describes the findings of the research which should be of use for designing of residential neighborhoods with spaces that could be more playable.

6.1.1. Sidewalks

Neighborhood I
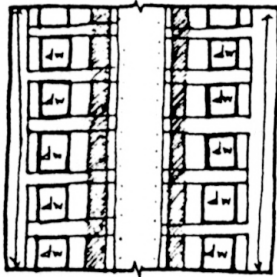
Width - 3'

Safety factor
High

Public space

Element/objects found
* Avenue of trees
* Paved areas
* This space is intersected by individual driveways
* Houses are set around 12' away from the sidewalks
* It is a linear space

Play activities
Winter
* Making/throwing Snowballs/snowmen
* Sliding on ice
* Shovelling snow

Spring
* Cycling
* Skateboard
* Ball games
* Play with natural materials and junk
* Skipping
* Play with existing objects

No.of children: 8-10
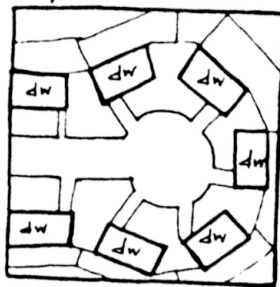
Neighborhood II

This space was not found in neighborhood II.

Neighborhood III

Width - 2'6"

Safety factor
High

Semi-public space

Elements/objects found
* No trees in this space
* Paved area
* Continuous strip with no driveway intersection
* Houses are set around 10' away from the sidewalks
* They are linear as well as curvilinear spaces

Play Activities
Winter
* Shovelling snow
* Making/throwing snowballs/snowmen

Spring
* Cycling
* Skating
* Sweet nothings
* Play with natural materials and junk
* Running games
* Play with existing objects

No. of children: 10-12

The word sidewalk itself portrays the idea of its function. A path within the city for pedestrians located along the sides of the streets. This is perhaps what adults picture the space to be, while children may see the path just as any other space around them. Being a linear space with a smooth hard surface, it has its own character which can attract several kinds of activities. The street surfaces are also of the same material, but are spaces which may prove to be more dangerous.

Physical Characteristics

During the study, sidewalks all over the city, especially within the three selected neighborhoods, were found to have some differences in their physical structures.

1. The major difference noticed, was that in the first neighborhood, these spaces with a linear grid organization were intersected by the car driveways from the streets on to the sideyards. The same space in the third neighborhood was indeed linear in nature but had no such intersections and thus followed a continuous linear pattern. As for the second neighborhood this space called the 'sidewalks' was absent.

2. Due to the vastness of the space in the second neighborhood the necessity of such a pedestrian path may not have been seemed important during its planning process. Moreover, the pedestrians here walk freely on streets as the vehicular traffic flowing into the cul-de-sac is much less.

3. In neighborhood I the sidewalks are open to public and so one finds many other activities such as construction repairs, people running errands, taking place. Children thus get a chance to interact with these activities. While neighborhood III is enclosed in a 'boundary' and semi-public were some of the public activities were not observed.

4. The sidewalks of neighborhood III seem to safer than those of neighborhood I.

Activities

The play activities in the sidewalks were pretty similar amongst both neighborhoods, but not in every aspect.

1. The most popular of all activities found in both the neighborhoods was cycling and skating. This is because both spaces are paved, smooth, good for activities on wheels and relatively safe.

2. The difference in one of the activities was that within the first neighborhood, where the sidewalks are public areas, toddlers were found playing only when accompanied by adults

while in neighborhood III the sidewalks were semi-public and the children from 5 to 11 years were observed playing without the adults around. This shows the level of safety.

3. For games played with rules, it was observed that in neighborhood I the space between two private driveways was the designated play space while for neighborhood III, the length of the building became the maximum distance for play area. This proves how different environments can create different ways to perform a similar activity.

4. Sweet nothings was an activity frequently observed in neighborhood III. This may be due to the high safety factor. Children fear less when the traffic is low and thus are free to roam around, sit anywhere or just observe the world. Sweet nothings is an important aspect of child play since it is during this time that children think as they observe.

5. As mentioned earlier, the first setting had an avenue of trees which gave sun-shade during most of the time in summer. Inspite of this, on days of intense heat, play was still possible while in the other setting this condition did not prevail due to the absence of shade giving trees. Though the building did cast shadows during some time of the day, the pavements were too hot to walk around and thus play activities reduced.

Both neighborhoods attract children. Trees to run around, safe spaces with freedom to play, spaces which provide many other experiences for their development and where other activities take place. It was just the nature of each space which made a child play in a different way.

6.1.2. Streets

Neighborhood I
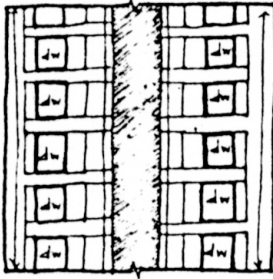
Width - 25'

Safety factor
medium

Public space

Elements/objects found
* high vehicular traffic
* light poles, fire hydrants on streetsides
* Parallel parked cars
* Drainage gutters
* It is a linear thoroughfare
* Other streets intersect at right angles
* Avenue of trees give street a strong form

Play Activities
Winter
* No winter play activities observed

Spring
* Running games
* Play with lightpoles
* Inactive Play

No. of children: 2-3

Neighborhood II
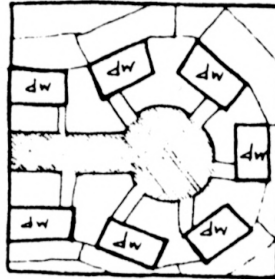
Width - 40'

Safety factor
High

Public space

Elements/objects found
* Medium vehicular traffic
* Rarely any cars were found parked '
* A dead end street
* No streetside trees

Play Activities
Winter
* Inactive play
* Sweet Nothings

Spring
* Cycling
* Baseball
* Skateboard
* Running games
* Balancing on curbs
* Play with street furniture

No. of children: 10-12

Neighborhood III
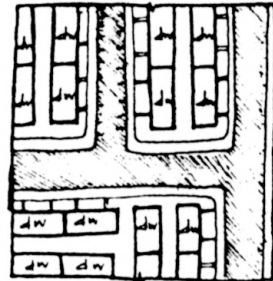
Width - 30'

Safety factor
High

Semi-Public space

Elements/objects found
* Low vehicular traffic
* Light poles fire hydrants are found
* Cars parked vertical to the curb
* Two street types- linear and cul-de-sac
* No thoroughfares
* No streetside trees

Play activities
Winter
* Inactive play

Spring
* Cycling
* Roller skating
* Playing with parked cars
* Ball games
* Social Play
* Sweet Nothings

No. of children: 6-8

The three neighborhoods selected for the research of this study was based on the different residential environments and layouts within the city of Manhattan. The major difference between these selected areas was the layout of the streets which may have influenced the environment and planning of each neighborhood. Every neighborhood is recognized by the street on which it is located giving a character to its area. Streets are the arteries of movement for any city. The kinds of activities occurring on a street depends on the type of the street itself. The main function of a street or road is to carry the vehicular traffic from one place to another. Some streets have a heavy traffic flow, some have medium, while some have a very light flow of vehicular traffic. Normally the residential areas have a light to medium traffic passing through. This was what was observed during the case studies. The nature, type and characteristic of the streets determines the kind of traffic that a street has and can influence activities.

Physical characteristics

Taking a look at the three neighborhoods selected, it was noticed that they all had a different character as their layouts were different.

1. The street space of the first two neighborhoods were without question open to all public while that of the third was not. Prairie Glen, the third neighborhood is a residential complex enclosed by a compound wall. Only the residents and their visitors enter the complex. The cul-de-sac of Haas Circle may be argued to be a semi-public space as well but it is not an enclosure which could restrict the entrance of those who had no reason to drive on it. This was the reason why in this study it is considered as a public space. The term public and semi-public itself can determine the amount of traffic which would flow through the space and hence the level of safety.

2. The second most distinct character was the way cars were parked. Leavenworth, the first neighborhood, had cars parked parallel to the street, while Prairie Glen, the third neighborhood, had cars parked perpendicular to the sides of the streets. It may be difficult to believe but Haas Circle, the second neighborhood rarely had any cars parked on the streets. During every observation, cars were found to be parked on the individual driveways. In this case, the width of the street looked even wider and felt much safer. Thus, differences were observed in the play types and activities along with the behavior of children at play.

3. The width of the streets vary in all neighborhoods. Neighborhood I is 25',

Neighborhood II is 40', and neighborhood III is 30'. The first neighborhood being the narrowest has more activities taking place such as parking on both sides of the street, two way traffic and other public activities make it lively and full of activity. On the other hand, neighborhood II is the widest which rarely has cars parked on the street sides and the traffic if much less. Further more, Neighborhood III is like a combination of the above two where the cars are parked on the street sides which end as cul-de-sacs.

Activities

   1. No winter activities were observed in neighborhood I, while a couple of silent walks on the streets (which may be a way of play for children) were found in neighborhood II and III.

   2. During the days of nice weather, play activities on the streets did not go by unnoticed. Skateboards was observed only in those neighborhoods where traffic was minimum. This activity was not noticed on the streets of Leavenworth. Sometimes running games, crossing roads, and climbing the light poles were observed within the children of an age group of 8-11 years.

   3. Cycling was observed to be a common popular activity.

   4. The cul-de-sac became a wide open linear space with house set back quite a ways from the street where baseball was often played by both boys and girls. The physical character of the street helped them determine limits and apply game rules. This was because children had absolutely no fear of a car passing by any time. 'My street' was sensed to be a very strong feeling prevailing amongst the residents and of course the children.

   5. While in the town house complex, running games around parked cars were fun for those children. This activity was popular due to the fact of cars parked perpendicularly to the street sides and not much fear of running into a zooming car passing by. They did not hesitate in moving around anywhere in the entire complex as they lived in the 'Prairie Glen'.

   As discussed above, through all the examples observed and understood, each neighborhood street gave rise to different play activities and provided the children with different play opportunities. The elements and objects within each neighborhood created a different environment. Children playing may not be conscious of this fact as they played along with what the environment offered them.

6.1.3. Frontyards

Neighborhood I
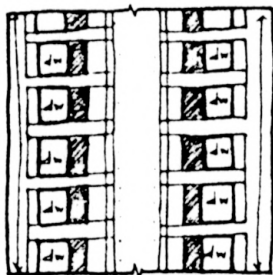
Width 10-15'

Safety factor
High

Semi-public space

Elements/objects found
* Front porch steps
* No trees
* 2' wide driveway or walkway
* Lawned and landscaped frontyard
* Frontyard for each house is different
* Steps have balustrades
* Plenty of natural materials are found
* No fencing

Play Activities
Winter
* Snowman building
* Snowball throwing
* Shoveling
* Sledding

Spring
* Tick Tack
* Natural material play
* Social Play
* Ball games
* Sweet nothings
* Climbing and jumping from trees
* Hide and Seek

No. of children: 6-8

Neighborhood II
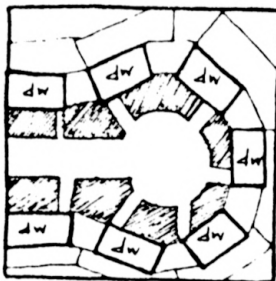
Width 20'

Safety factor
High

Semi-public space

Elements/objects found
* Doorsteps
* Bushes
* Garages & driveways
* Frontyards-' lawned and landscaped areas
* Mailboxes
* Streetlight
* No fencing
* Plenty of natural materials and junk

Play Activities
Winter
* Snowman building
* Snowball throwing
* Sleighing
* Ploughing

Spring
* Basketball
* Ball games
* Pretend play
* Natural material play
* Skipping
* Water gun play
* Hopscotch

No. of children: 8-10

Neighborhood III
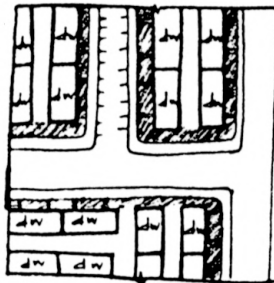
Width 8'-10'

Safety factor
High

Semi-public space

Elements/objects found
* Steps with railings
* Open porch like landing of steps
* Bushes
* Walkways
* Lawned areas
* All frontyards look similar
* Plenty of natural materials and junk

Play Activities
Winter
* Snowman building
* Shoveling

Spring
* Inactive play
* Sweet nothings
* Sliding and climbing railings
* Natural material play
* Ball games

No. of children: 2-3

Frontyards are personal spaces right in front of the houses. They are those semi-public spaces which act as a link between the private home spaces and the public street spaces. Individuals maintain their own frontyards and are free to use it in their own way as long as it abides by the city laws. It gives every resident a chance of creating within their homes a warm welcoming feeling. Those who love gardening, landscape their spaces. Moreover, the existence of this space creates a buffer between the street noise and quiet homes. Usually all the frontyards are lawned, thus creating a green strips along the sidewalks enhancing the beauty of the city.

<u>Physical Characteristics</u>

1. During the course of the study, the safety factor of these spaces for all three residential areas was found to be high.

2. The frontyards of the neighborhoods were measured approximately. The width of these spaces within each neighborhood, or it can also be described as the set back of these spaces from the sidewalks or street curbs, were different. It would have had been strange had they all been the same. Leavenworth street had frontyards which were 10'-15' deep while Haas Circle, which had no sidewalks, had these spaces 20'-25' deep. It must be noticed again that this neighborhood is the new city development. As the city laws change so does the planning of the city. Thirdly, the town houses had quite small frontyard spaces compared to the other two. Here the yards were about 8'-10' wide and 15' long which were shared by two families. Taking a look at the layout, the reason as to why these spaces in the third neighborhood were small, was due to the enormous space they had as backyards. The residents lifestyles also portrayed the intense use and liveliness of the backyards.

3. The first neighborhood had a lot of trees planted which gave rise to play opportunities as described in chapter five. This was not the case for neighborhood II and III.

4. Comparing the frontyards of each neighborhood, like all other spaces, there were differences in its character. The first neighborhood, with frontyards 10'-15' wide, have the same width throughout the entire street. The continuity of the space is broken up by driveways for private cars which could be parked in the backyards or the sideyards. Hence, limits to an individual frontyard was determined. The most interesting aspect of this neighborhood was that the house had a covered front porch which could become a part of the frontyards. An avenue of street side trees gave a feeling of enclosure, separating the streets visually. There were

trees, bushes, mailboxes steps, railings, junk and natural materials all around which attracted many children. All these objects were also found in the second neighborhood with an exception of having wider frontyard spaces and no street side trees.

But the major difference in the same setting was in the existence of a garage area with a basketball goal net above its door. The front driveway became a basketball court. This type of space was absent in the other two neighborhoods. The smaller spaces of the third neighborhood had a flight of steps reaching an open porch with railings on its sides to climb up also giving opportunities to slide and jump around.

Activities

As shown in the table, each neighborhood had play activities where children were playing with natural materials, games with rules, ball games, swinging around and jumping.

1. The most distinct difference was found in the play activities of children from the second neighborhood. They had a replica of a basketball court and this game was noticed to be a favorite activity among the older age group of children (7-11 years). The children from the neighborhoods I and III normally had to go to the playground to play basketball.

2. While in the first neighborhood, games with rules were observed more frequently. The building elements and physical character of this neighborhood were observed to be used and incorporated in such play activities.

3. The most frequent play activities in the third neighborhood were inactive play and sweet nothings. This may be due to the reason that the frontyard spaces are smaller in width and shared by two families restrict the types of play activities.

4. Skipping and hopscotch on the driveway spaces were the two activities found in neighborhood II and III. A vast open space gave them freedom to play anywhere.

5. Unlike neighborhoods I and III, water taps were found in the frontyards of neighborhood II and thus play activities evolved around water play.

Just as the architectural characteristics change from neighborhood to neighborhood, so do the play activities. A difference was noticed even in the behavior of children. The lesser the fear the more free their actions were. But this does not necessarily mean that these spaces were the best. In fact, sometimes spaces with more activities/traffic have more opportunities to explore and experience the world.

6.1.4. Backyards

Neighborhood I
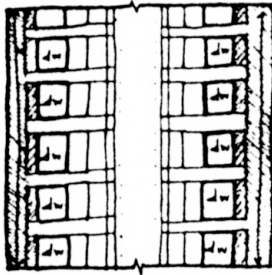
Width 10-20'

Safety factor
High

Private space visible from backalleys

Elements/objects found
* Fencing all around
* Rustic looking
* Swings/slides
* Ground is not landscaped
* Storage of unwanted materials
* Doghouse, clothlines
* Junk and natural materials
* Trees

Play Activities
Winter
* Snowman building
* Snowball throwing

Spring
* Ball games
* Basketball
* Building and constructive play
* Climbing/ Jumping
* Natural material play

No.of children: 4-6

Neighborhood II
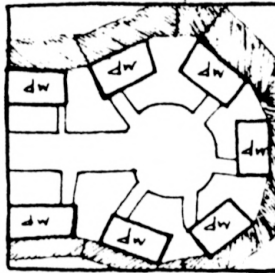
Width -variable

Safety factor
High

Private space

Elements/objects found
* Fencing all around
* Not visible, from other areas
* Sand pits
* Trees and bushes
* Barbecue stands
* Unwanted objects
* Well maintained areas

Play activities
Winter
* Snowman building

Spring
* Ball games
* Playing in sandpits
* Natural material play
* Water play
* Gardening

No. of children: 1-2

Neighborhood III
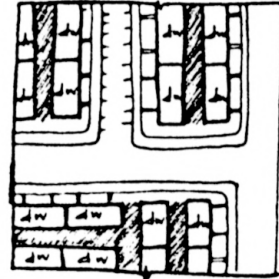
Width - 55'

Safety factor
High

Semi-public

Elements/objects found
* Fencing only around some private ares
* Well maintained areas
* Barbecue stands, swings, slides, electric fuse boxes, etc.
* Clothlines, pethouses
* paved, unpaved and sandy areas
* Trees and lightpoles

Play Activities
Winter
* Snowman building

Spring
* Baseball
* Ball Games
* Running Games
* Inactive play
* Sweet nothings
* Natural material play
* Swings

No. of children: 12-15

The more private outdoor spaces are situated to the back of the houses. These spaces could be fenced off or may remain as an open common area. Sometimes they are converted into parking lots especially when the space is shared by apartments. Experience and studies show how important backyards are to individuals. It is a place where residents are free to perform any activity without the public easily being aware of it, hence, giving a feeling of privacy.

Unlike the frontyards, these spaces are not always visible. Every house has a backyard to do things in, mess around, and store away objects not wanted in the house, such as boxes and useful junk. Backyards were found in different situations and of different types during the research.

Physical Characteristics

1. The neighborhood on Leavenworth street had backyards which were usually fenced. The backyards of houses of two streets, Leavenworth and Humbolt, shared common back streets otherwise referred to as back alleys, which were narrow and not very well maintained. These spaces had rough look but it was found to be a good situation for children's play, with some different experiences.

2. While the second neighborhood was different in nature. There were no back alleys. The backyards were strictly private and fenced off with wire. Several houses shared common fences depending on the location of the house. From the sideyards these spaces could be approached through a gate. Not many observations were possible for this neighborhood from the streets. So, the study here was based on whatever play activities were possible to be observed.

3. The third type of neighborhood had a common backyard space shared between approximately sixteen families. It was like a long strip possessing the appearance of an alley. This area had the possibility of residents to cover up (fence) a portion of the backyard space which was paved as their personal private space with a gate accessible to it from the common grounds. With many adult activities and due to the opportunities available, children were found to be attracted to this space more often than any other space with the complex. The space seemed to have more life than the backyards of other neighborhoods.

"Life attracts life".[26]

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[26] Jane Jacobs, quoted by Anthea Holme in "Children's Play: A Study of Needs and Opportunities",1970, p.76.

4. Such different situations and to a certain extent the elements, within that space affect play. Barbecue stands, junk materials, swings, etc. were common. But the placing of personal belongings, dog houses. sand pits were found only where private backyards were available as in neighborhood I and II.

Activities

1. Some children played with swings and slides while some invented their own creations as in the backyards of neighborhoods I and II.

2. The wire fencing in neighborhood I, separating the back alleys from the backyards, was a nice element to play ball games, badminton etc.

3. During a couple of site visits of neighborhood I, some children with supervision of their parents played with tools and engaged themselves into constructive play. They were found to be constructing a fence, some were found to be building pet houses while some children with the help of adults were found to be building a tree house.

4. Where the common spaces were wide and open as in the third neighborhood, games requiring larger areas like baseball, soccer were observed. Backyards spaces, no matter whatever neighborhood they were situated within, were found to be a safer environment for children to play in. These spaces were safe, always under parent supervision and had all kinds of materials from junk to toys to explore and play with.

5. As far as in neighborhood III, due to its linear quality, children played baseball and other ball games.

Children appeared to have freedom in action, expressed their feelings through play, running and jumping from one end to another experiencing all that they could. Some adults may find it unbelievable but when children are working, helping, playing or even just sitting around they are always observing, learning questioning and finding answers.

6.1.5 Back Alleys

Neighborhood I
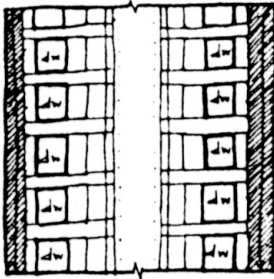
Width - 15'-20'

Safety factor
Medium

Semi-Public space

Element/objects found
* Linear in form
* Paved areas with broken patches
* Plenty of Natural and junk materials lying around
* Not a very clean space

Play activites
Winter
No winter activities were observed

Spring
* Ball Games
* Play with junk
* Running Games

No. of children: 3-4
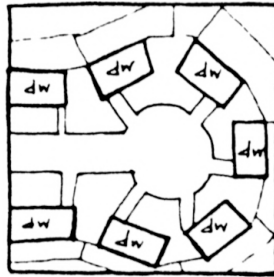
Neighborhood II

This space was not found in neighborhood II.
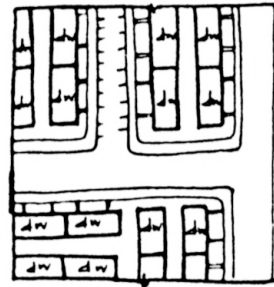
Neighborhood III

This space was not found in neighborhood III.

A street like space smaller in width but situated to the rear of dwellings are called back alleys. These spaces were found only in neighborhood I, Leavenworth street, and hence there is no possibility of comparison. Taking a look at the space studied, the back alleys provided some interesting opportunities for play.

1. The width of the back alley was 15'-20' and this restricted the number of people and the level of traffic flow.

2. Being a common space it was not very well maintained. They turn out to be 'no man's land' and hence got accumulated with junk and trash with cars parked in some areas. These elements gave rise to different play opportunities and a chance to explore a different world.

3. Due to its linear space ball games were observed.

6.1.6. Sideyards

Neighborhood I
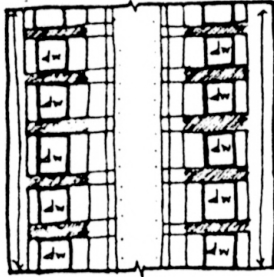
Width - 10'

Safety factor
Medium

Semi-private space

Elements/objects found
* Trees, bushes
* Partially paved areas
* Cars parked here
* Stairs to upper level of house
* Trash cans
* Plenty of natural and junk materials

Play Activities
Winter
* Snowball throwing

Spring
* Climbing and jumping stairs, cars
* Natural material play
* Inactive play
* Pretend Play
* Ball Games

No. of children: 3-4

Neighborhood II
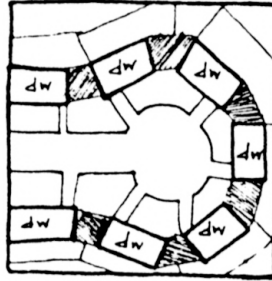
Width - 15'

Safety factor
High

Semi-private space

Elements/objects found
* Trees, bushes
* Totally paved areas
* No cars
* Water taps
* Gate to backyards
* Natural and junk materials

Play Activities
Winter
* Snowball throwing
* Ploughing

Spring
* Ball Games
* Water play
* Natural material play
* Running games
* Sweet Nothings

No. of children: 4-6

Neighborhood III
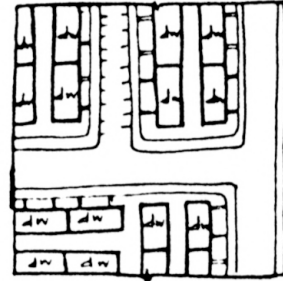
Neighborhood III does not have any space which could be designated as a sideyard.

The literal definition - the area located on the sides of houses are sideyards. As per the layout of today's houses, especially those in the first and second neighborhoods, these spaces are located between two houses. Normally a sideyard is shared by both of those houses between which that space is located. It thus becomes a common space. The width helps in providing privacy between adjacent houses.

<u>Physical characteristics</u>

1. The sideyards of the old city area, Leavenworth, are around 10' wide partially paved areas. It was found that most of these spaces in this residential area had cars parked. The driveways led straight onto the sideyards and at times it was even possible to drive through into the back alley or parking lots. The situation is the opposite in the new city development where the sideyards were paved except for the narrow flower beds on its sides. Here, cars have no access to this space and the backyards are fenced off with a gate in between.

2. As described earlier the first neighborhood had a different character with staircases, gravel on the ground, cars parked, and not very well-maintained or landscaped areas. This gave very little free space for children to play within and hence they played with those activities which did not require a lot of space to play with, like, hide and seek, climbing stairs, jumping etc. Taking another look at the sideyards of the neighborhood II, this space was not shared by two families and no cars had access to this area. Different elements like water taps were found. It is a nice transition space between the frontyards and backyards.

<u>Activities</u>

1. The most frequent activities such as climbing stairs and jumping from railings observed in Leavenworth was the play with building elements. Some children played with the parked cars. This may be because of the width of this space and the existence of so many elements which do not allow the possibility of other activities.

2. While in neighborhood II, ball games, running games and water play were frequently observed. The open space and the existing of water taps made these activities possible.

3. Gardening, cleaning were all fun activities which children performed once in a while. Some girls skipped or sat down and just gossip.

4. The third setting did not have any areas which could be termed as sideyards and hence has not been discussed.

6.2. FINDINGS

All the spaces categorized have been observed, compared, discussed and analyzed. This part of the study shall describe and list the findings of the research.

During the study of the three selected neighborhoods, each setting was within a different environment for children to play in. The common aim was to establish the difference of children's play in such different environments and also to understand their needs so the suitable play areas. By understanding the children's behavior outside their homes it was hoped to discover the relationship between the urban environment and children's play. After the study was completed there were five major views which could be established as findings of the research.

They are listed here:

1. Children respond to the environment they are in.

2. Different play patterns/activities occur in different spaces/environments.

3. Children have needs and requirements of their own.

4. Children play wherever they are whatever situation they are in.

5. Children like to be where the life is.

Each finding has been described under:

1. Children respond to the environment they are in.

One of the most important findings arising from the research is that children playing appear to respond to the environment. This was observed through many play activities within the neighborhood. In the old city development, Leavenworth, children seemed to congregate more towards the backyards. In the frontyards their play was more quiet. While in the new city development area, Haas Circle, children got together in the streets and their play was active, vigorous and free. In neighborhood III, Prairie Glen, which was a complex of apartments, children were found to be moving around the entire complex. Their games were usually observed as group activities exposed to various kinds of play opportunities already described. Whenever it was difficult to play on the streets of the first neighborhood the children would travel away from home to find a more suitable area. It could be the playground or another neighborhood all together. This was possible only for the children of an older age group 8-11 years who had the courage to wander further away from their homes on their own. Safety is

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an important factor of the environment to which children respond.
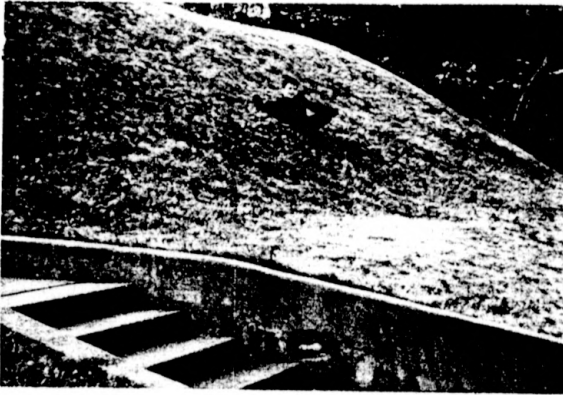
Illus.91 Children respond to the environment they are in.

Children need to be able to move around and play within the general environment. It is also important particularly for the very young, that they should be able to play within sight and sound of their homes. Traffic congested streets are obviously not suitable. Pedestrian segregation in the planning of urban cities allows maximum freedom and safety of movement and play. This was evident from the study of all three neighborhoods. Some neighborhoods have cul-de-sacs where there is sufficient space for children's play inspite of the garage spaces. There is a subtle relationship between the children and their environment. **The environments around them influence their decisions and thus their response to it.** As seen during the study, residents of Leavenworth consider streets to be dangerous while those of the other neighborhoods consider their streets to be safe areas for play. This is how individuals and children respond to their respective environments.

2. Different play patterns/activities occur in different spaces/settings.

This was the major finding of the study as the environments of the three neighborhoods were different. There is a variety in the types of spaces found within different neighborhoods. This was evident during the observational study. The neighborhood in Leavenworth had more traffic with linear spaces, while the cul-de-sac provided a vastness in the open street spaces. In addition to this, the spaces of the town house complex was like a combination of the above two mention street types enclosed within a large area. All neighborhoods had their positive as well as negative factors of the play spaces described in chapter 5. The intention of the study

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was not to define the best space but to put forward the fact that play patterns and activities vary in different settings.

There will always be different urban environments. This variety is desirable and can create great new experiences and opportunities. Studying the spaces children enjoy playing in

Illus.92 Different play patterns occur in different settings.

should be considered for the design of play provisions. The distinction between the selected case studies is clear. One is the old city development, the other is a new development while the third is in between these two. There are noticeable differences in the housing, architectural elements, traffic flow, street layout, open spaces and so on. The fact is that children seek variety. The urban environment provides this. It is important for children who are curious to find out about the world around and prepare themselves to become a part of the adult world. They have needs and all spaces do not give them what they want, so they create their own opportunities. These different environments give rise to different play opportunities and children from different environments grow up to be different.

Playing around the home and the neighborhood is important and that it encourages a sense of belonging, provided there is enough safety and the assurance of adult members. The streets of course provide many of the ingredients of good play - light, movement, color, noise and adventure -along with the elements of each space which creates opportunities for different play activities/patterns.

3. Children have needs and requirements of their own.

The urban environment in particular is becoming increasingly restrictive to play opportunities and especially the freedom to play. The urban child today, may the city be largely populated like New York or less like Manhattan, Kansas, has to face the fear of dangers. Children have frustrations and obstacles to full freedom of activity in the larger cities than they do in the city of Manhattan. But there are always limits as to what one may do. Nevertheless, play needs for town and city children are the same inspite of their play opportunities being different.

There is and shall always be a need to provide children with somewhere to play besides the playground. Just building a play ground is not enough. City planners and officials must not throw play opportunities into one single open space which may at times be the left over space. The years of childhood are not long and children should not be deprived of their rights to enjoy this stage of life. Children's need to play has also been described in the earlier chapters. They need to acquire social, physical, symbolic, intellectual and such other skills to lead a normal adult life. The planning of today's cities must consider the fact that children live in their neighborhoods and use those spaces more than the planned play areas. Housing developments do not always have to provide a planned play space but must consider play activities and child behavior as each space is designed.

Illus.93 Children have needs and requirements of their own.

Children like to be within child-like spaces, spaces which are to their scale. They need to be reciprocated with their response to the environment. They need space, freedom and protection from the dangers of city life. Children need to be given an opportunity to run around, shout, jump, climb, hang, mess around, play with junk, help adults in their activities and thus explore the world and learn as they grow. The needs provided can make a great difference towards their development. The spaces where they live in are the most influential factors. The home environment is where they are with their friends. Dumping them into a playground will never fulfill their requirements. They are people too with needs and requirements to live through their childhood and enter another stage of life.

4. Children play wherever they are whenever they want to.

The study shows that children play when and where ever they can, in the streets, in the fields, on their way to and from school, in a crowd, on a piece of waste land, waiting at the bus stop, walking or running, climbing trees, swimming in the river, talking quietly with friends, sitting on fences and in the sun, etc.

They take all that the neighborhood has to offer. They express their emotions and feelings through play. All this comes from the environment they live in wherever it may be. They are found playing in the informal play areas around their houses. The frontyards and public footpaths blend together as there are no separating hedges and walls. It is possible for children to play with cars in the middle of a pavement with little or no obstruction at all.

Illus.94 Children play wherever they are whenever they want to.

During the case studies, it was noticed that where ever the children were found they were always into a play activity - may it be imaginative constructive, intellectual, physical or inactive. The space does not matter as long as it fulfills their needs. Children have the talent to find a way out. They do as they wish no matter wherever they are. This was also evident when children were found playing in supermarkets, departmental stores, parking lots and even restaurants.

It is thus important to give these youngsters an opportunity to be in a variety of situations to which they can respond and create play patterns in different settings.

5. Children like to be where the life is.

'....where the life is'.[27]

This doesn't have to be only human life but also the natural life, as Jane Jacobs writes. She also explains that, it would be ideal to dispose off cars entirely from city streets for children to play but she fears that the advantages would be counteracted by the lack of other utilitarian purposes of the side walks. The majority of city children have become accustomed to traffic since they were infants. Cars, buses, cycles, people, urban noise all become a part of their lives. This may be why children like to be within life. If they find the right company, they stay in their vicinity. It was observed as well as experienced that younger children tend to play in a space with other people and follow them wherever they go. Children want to know about the unknown. Parents are considered as the best teachers so they learn from them. Life around has noise, movement and excitement. Adding all this to play gives a rich experience.

Illus.95 They go to places where 'the life is'.

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[27] Jane, Jacobs, quoted by Holme, Anthea in "Children's Play:A Study of Needs and Opportunities",1970,p.76.

"The gods play where the groves are,

near rivers, mountains, and springs,

and in towns with pleasure gardens."

-- from a Hindu Temple.

as quoted by Dargan, Amanda in City Play, p.176.

7

CONCLUSIONS

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CONCLUSIONS

Young children live the whole day in and around their homes. Planning for their play involves the design of the whole neighborhood, not just the play grounds because children do not only play in the play grounds. They play wherever they move. They play to satisfy their inner urges and desires. Play is a way children learn about themselves and the world they live in. If the environment of housing estates and neighborhoods in which they live is taken into account then a better proportion between parking space for cars and outdoor space for people can be achieved.

1. In the process of mastering familiar situations and learning to cope with new ones, children's personality and intellectual growth takes place along with physical growth. The environment for play, hence, has to be rich in experience, and must be to a significant extent under the control of the child.

2. Children respond to the environment they are in.

3. As seen in the earlier chapters, play offers opportunities for physical exercises, sensory pleasure, testing and improving skills, self-reliance, gaining experience, having adventures and exploring the environment. It is evident that play is a learning for life. Obviously, play like all other activities, takes place in the environment. The research proves and describes how different environments can influence play activities and patterns. The observations made for each space in all the three neighborhoods, after an comparative analysis, describes this fact.

4. Above all this, another important fact found was that children have certain needs and requirements which designers and planners must be familiar with in order to sustain the richness and playful nature of children. They must not be segregated into a land called the playground because that doesn't fulfill all their needs.

5. Children accommodate themselves to whatever situation they are put in but their play changes with the change in situation as well as climatical factors. The differences in the three neighborhoods was very helpful in determining this fact.

6. They need to be where the life is, where all other activities take place and where they can explore the unknown but for which safety is the most important issue to be considered. Today's world, full of crime, a place where streets are for fast moving traffic and a place where children are not free to move around can become a world where one day playing

freely in the environment might become history.

7. Manhattan, being a small city offers a variety of play opportunities unlike the other metropolitan cities where play opportunities are disappearing. The neighborhoods studied were quite different in nature and their offerings towards play opportunities for children were quite rich. This has been explained earlier. This city is not over populated, housing is not congested, scarcity of land is not a problem and traffic and crime problem is not a grave issue. These are most of the factors which can be a major hinderance to providing a healthy environment for children to play and grow in. The city provides a healthy play environment but the growth of the city can never stop and so one must take measures, before it is too late, in order to sustain all that the city offers today to the children of Manhattan, Kansas.

Some general problems of play

1. It is necessary to create an environment which can be used by children and ensure that some areas are free of household and outside urban dangers where a child can truly play.

2. The natural way to mess around in some spaces is becoming impossible in larger cities. Children out-of-doors and unaccompanied by elders may present problems to the adult society as they do not always behave the way adults want them to. They have an irresistible urge to be active most of the time.

3. The greatest dangers to children in any neighborhood is that of traffic. Streets are now-a-days no longer for people but are for vehicles. This was and may always be the single most constant fearful factor for encouraging children to stay away from streets. Even if children are old enough to venture out, their parents fear the dangers of the streets. It is not possible, indeed not desirable, to try to remove all possibility of accidents from a child's environment. The risks may be worthwhile provided they are known and provided the child is prepared to explore in these situations. Street environments may not safe but they do provide a rich experience.

4. Every parent wants to know that their children are safe and near when they play outdoors. They want to supervise their movements and be constantly aware of their whereabouts. For this reason, most parents restrict the home range and would not allow their children to wander further away than a couple of blocks from their houses. This is a problem when adults are engaged in other activities and children wander away. Though the level of

restriction would depend on the age of a child the parents confidence to allow them to be on their own. Children may feel old enough as opposed to their parents. Some parents may restrict their children from messing around, getting dirty but they do not realize that they are actually depriving their children from the wonders of creativity.

5. In the planning process the need for play opportunities has less priority than the adult needs. Low priority is given to maintenance and managing. Hence 'maintenance free' playgrounds are preferred now-a-days. Many of the provided play areas are an after thought and are not integrated into the fabric of the community like the English expression SLAP = Space left after planning.[28] There are very few incentives for developers to plan with the consideration of children as users too. There is actually no need to duplicate opportunities that children can find for themselves, which means there is no need to create ladders where there are trees and rocks, or pools where there are beaches. What has to be done is to provide them with what they are missing and create a better environment.[29]

Design Recommendations

It is difficult to argue for an ideal play situation and no place is the worst or the best. Children play wherever it may be the sidewalks, streets, frontyards, backyards or the sideyards.

1. Designers, architects and planners must help to sustain the richness a city offers by giving more priority to the importance of children as users of the environment and understand how the variety in nature gives rise to different living environments and thus different playing experiences.

2. They must try to incorporate children's ideas or allow them to participate in the designing process. The important thing may be to create a variety of experiences that in some way can be controlled by children. **"External Tension is destruction to play"**.[30]

3. The study shows how building elements like steps, railings, street curbs, poles, etc. become an integral part of children's play. Some activities need a linear space while some do

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[28] National Building Research Station, Children's Play on Housing Estates, 1967, p.17.

[29] Dattner, Richard, Design for Play, 1974, p.101.

[30] Holme, Anthea, Children's Play: A Study of Needs and Opportunities, 1970. p.40.

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not. Without natural elements like trees, bushes, sand and water, play is not complete. It is upto the designer to arrange all necessary elements so that they create an environment which can evoke children's curiosity and still not affect the adult activities.

4. Designers must understand child development and the influence an environment can have on child play and thus the development. They must keep an update on the current information and research which would be helpful towards the design of a better environment.

5. Some basic factors that may be considered to improve existing conditions or for a new design are:

- Give some priority to children's needs during the design process.
- Incorporate building elements like steps, railings, windows as elements of play as well.
- The type of ground required.
- The distance of playable spaces from the dwelling.
- The radius of action.
- The type of street space and its influence on other spaces.
- Relation of semi-public spaces to public spaces.
- Level of interaction with neighbors and friends.
- Availability of natural materials.
- Possibility of all types of play to take place.
- Weather conditions and its implications on play activities.

6. On the whole, it may be argued that the issue is not so much of providing play areas but of integrating them into the general life of a city or a town. The city of Manhattan, Kansas, is not one of those largely congested metropolitan cities where the play opportunities for children are absolutely disappearing. High rise residential areas do not give a chance to explore the natural world. Such city problems were not encountered and hence not listed. However appropriate measures should be taken to improve and sustain the existing opportunities provided by the city.

An Example- suggestions to improve Neighborhood II.

This example is a general guideline to understand how an existing residential neighborhood in an urban setting could be improved in order to provide better play

opportunities. The second neighborhood, Haas Circle (cul-de-sac), selected for this study has been chosen as an example. It must be noted that the suggestions may not be the best solution and their feasibility may be disputable. This example must be understood only as a rough guideline for the development of similar neighborhood situations.

Neighborhood II
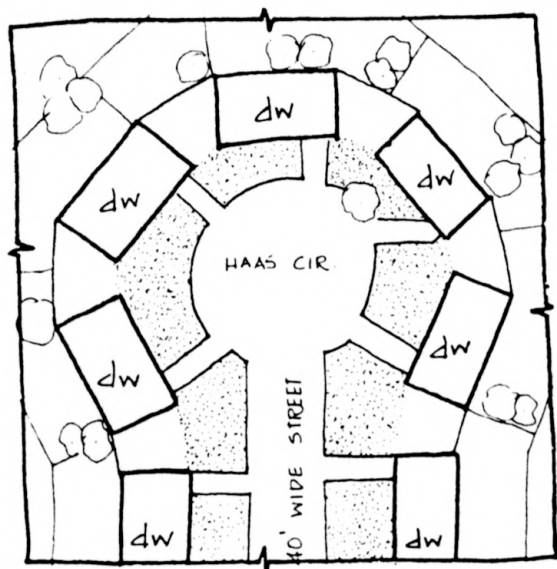
Fig.23 Existing plan
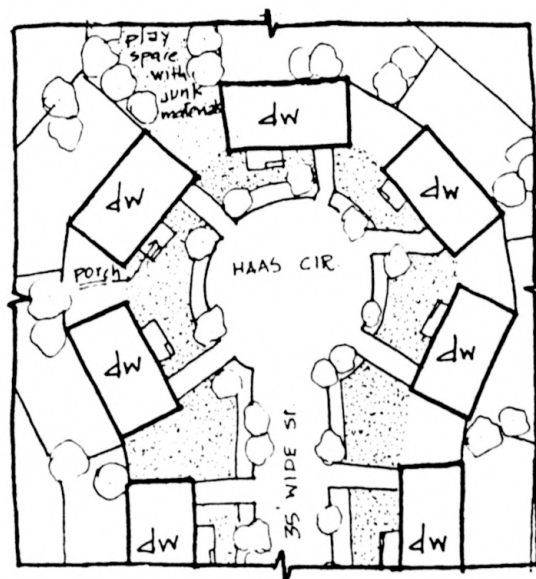
Fig.24 Recommended plan

1. Traffic is not a major problem. Since the streets are approximately 40' wide and the cars are parked usually on the drive ways, other elements could be incorporated such as adding sidewalks to the street sides. This space gives people a chance to walk around the neighborhood without the féar of intruding 'someone else's' property.

2. More shade giving trees should be planted along the streets. Play opportunities with nature would increase in these spaces and so would the beauty of the neighborhood.

3. The houses could have front porches as seen in neighborhood I. This architectural characteristic helps to enhance people's interaction with their environment and outdoor activities. It may give more life to the neighborhood thus attracting more children to play. It

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may also serve as a good space for play as well as socializing during rainy days.

4. Railings around steps attract children to climb and jump around. One must consider these spaces as possible elements for play and thus develop safety measures around them such as a soft ground underneath them.

5. The layout of houses around the cul-de-sac is an ideal solution for parent supervision. This is true only for the front spaces. Supervision for the back spaces would need to be done by adults inspite of being protected by a fencing all around.

6. It may be interesting to provide one plot within the neighborhood as an open space. This small common open space can have all the natural materials such as trees, stones, sand and junk where children in a group can put their creativity to work. It may change the character and beauty of the neighborhood but it would definitely prove to be fruitful in terms of play opportunities.

7. Houses may incorporate a element of a terrace or a deck. This type of a space can be safe as well as semi-open where children have a different feeling playing on a different level. They can invent new activities relating themselves to the ground like throwing balls, parachutes etc. While adults could use this space for relaxing and socializing.

These suggestions given are for the improvement of play opportunities for the neighborhood with an attempt of incorporating it into the adult world and day to day life styles.

Research alternatives/ Opportunities for further research

Each topic touched upon in this study may need much deeper exploration because every aspect of play provision poses its own problems requiring its own solution. Inspite of that, this research shall certainly be helpful for all those who are concerned with planning and designing of the environment and play spaces for children.

Further Research

1. This study was conducted during winter and spring. Further research could be conducted during the summer and fall in order to strengthen the findings.

2. As stated earlier on the previous page, each topic may need deeper exploration. Different neighborhoods could be selected to conduct a similar study. This could be done for

the city of Manhattan, Kansas or another city of the same scale.

3. The study could be improved by incorporating interviews with children as well as the residents in order to know their opinions about the neighborhood, play opportunities, problems and their likes and dislikes.

Research Alternatives

1. A similar research could be carried out for the residential areas in a larger city like Kansas City where there may be many other factors influencing play and where the environment is very different after which a comparative study between a small city like Manhattan, Kansas and a large city like Kansas City could be done.

2. A study for a different age group of children like 11-16 years could be done.

The conclusions drawn for this study may not stand good for the improvement or the design of residential neighborhoods in any urban setting. Each neighborhood in a different city has different situations which require different ʾ solutions. Every neighborhood has a different environment and different kinds of people living which may need to be dealt separately. This is the reason why the conclusions derived may not be generalised for all neighborhoods and may be limited only to the types of neighborhood selected and children observed.

8.

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8. BIBLIOGRAPHY

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APPENDICES

Appendix A - Observation sheet for data collection.

Appendix B - Sample sheets of observations recorded.

OBSERVATION SHEET

Date

Neighborhood location   Western   Eastern   Central

Arrival time   **Departure time**

Weather conditions

Sunshine   Rain   Snow Cloudy   Temperature   (Temperature noted shall be

derived from the weather forecast)

Children Playing   Yes   No

If no, any reasons

Approximate age group   3 to 7   8 to 11

No. of children   In groups or individuals

Boys   Girls   Unidentifiable

Accompanied by adults   Yes   No

Where are they playing?   Public   Semi-public

Type of space

Sidewalks   Streets   Frontyards   Backyards

Back alleys   Sideyards   Others

Physical characteristics of the space/s

Approximate area

Special Elements

Types of play activities

Additional play equipments used for play

Obstacles or problems during play observed

Traffic type   heavy   medium   low

Sketches photographs taken   Yes   No.

Notes

SAMPLE SHEET-1

Date — March — 10

Neighborhood location _Leavenworth_ Western   Eastern   (Central)

Arrival time — 4:00 pm   Departure time : — 4:30 pm.

Weather conditions

Sunshine   Rain   Snow (Partly Cloudy)   Temperature — 45°-50° F

(Temperature noted shall be derived from the weather forecast)

Children Playing   (Yes)   No

If no, any reasons

Approximate age group   (3 to 7) and (8 to 11)

No. of children — 5 - 6   In (groups) or individuals

Boys 6   Girls   Unidentifiable

Accompanied by adults   (Yes) 3-4 years.   No

Where are they playing?   Public   (Semi-public)

Type of space

(Sidewalks)   Streets   (Frontyards)   (Backyards)

(Backalleys)   Sideyards   Others

Physical characteristics of the space/s

Frontyards — grass, sloping hill at west end, safe.
backyards — private, fence, junk stored, sand exposed.
Sidewalks — between 2 green patches, paved -
Alleys — uneven, rough appearance.

Approximate area

Special Elements —

Types of play activities

7. — Rolling down hill, play with natural material, games with rules
8. — Constructional play, younger children — natural materials.
Alley — kicking balls.
Sidewalks — socializing, running games, ball.

Additional play equipments used for play

Obstacles or problems during play observed

Traffic type   heavy   (medium)   low

Sketches photographs taken   (Yes)   No.

Notes

OBSERVATION SHEET   **SAMPLE SHEET -2**

Date _March 10_

Neighborhood location _Prairie G._   Western   (Eastern)   Central

Arrival time   _4:45pm._   Departure time : _5:05pm._

Weather conditions

Sunshine   Rain   Snow (Partly Cloudy)   Temperature – 45°-50°

(Temperature noted shall be derived from the weather forecast)

Children Playing   (Yes)   No

If no, any reasons

Approximate age group   (3 to 7) and (8 to 11)

No. of children _-app 10_   In groups _and_ individuals

Boys _and_ Girls   Unidentifiable

Accompanied by adults   Yes   (No)

Where are they playing?   Public   (Semi-public)

Type of space

(Sidewalks)   (Streets)   Frontyards   (Backyards)

Backalleys   Sideyards   Others

Physical characteristics of the space/s

Backyards – Common space, soft ground, uneven,
Sidewalks – 3' wide, paved 6" above street.
Streets – cars parked,

Approximate area

Special Elements – backyards – lively spaces, some personal items stored.

Types of play activities

Ball games, Street Do things, Swinging, Socializing,
Cycling in groups – streets & sidewalks.

Additional play equipments used for play – balls, pets, natural material

Obstacles or problems during play observed

Traffic type   heavy   (medium)   (low)
                               streets?

Sketches, photographs taken   (Yes)   No.

Notes – Younger children (3-5) – found outdoors more
often.

OBSERVATION SHEET   <u>SAMPLE SHEET_3</u>

Date - March 10

Neighborhood location Haas lin (Western)   Eastern   Central

Arrival time — 5:20   Departure time — 5:40.

Weather conditions

Sunshine   Rain   Snow (Partly Cloudy)   Temperature — 45°–50°

(Temperature noted shall be derived from the weather forecast)

Children Playing   (Yes)   No

If no, any reasons

Approximate age group   3 to 7   (8 to 11)

No. of children — 8 appr.   In (groups or) individuals

Boys   4   Girls   Unidentifiable

Accompanied by adults   Yes   (NO)

Where are they playing?   (Public) and (Semi-public)

Type of space

Sidewalks   (Streets)   (Frontyards)   Backyards

Backalleys   Sideyards   Others

Physical characteristics of the space/s

Streets — open spaces, no parking, dead end.
Frontyards — green spaces, sloping up to house
     wide open areas

Approximate area

Special Elements — has garage spaces.

Types of play activities

Streets — baseball, skateboarding, cycling
Frontyards — basketball, running games, imaginative play
               play with guns

Additional play equipments used for play — toy guns, ball & bat.

Obstacles or problems during play observed

Traffic type   heavy   medium   (low)

Sketches, photographs taken   (Yes)   No.

Notes — No sidewalks exist -/