

AN EVALUATION OF THE CHANGING APPROACHES
TO
CHILDREN'S PLAY SPACES

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ABSTRACT

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In the nineteenth century, specialization and segregation of land uses necessitated to identify formal spaces for child's play activity in the cities. In the late nineteenth century, "traditional playgrounds" were provided for children. However, formally designed, spatially segregated play space brought its own problems itself. Rapid changes in the urban pattern and dominance of cars in the urban environment restricted the safe accessibility of children to such play spaces by themselves. Also, "traditional playground" has been criticized because of its inefficiency to answer the needs of children and to contribute to the continuity of play activity.

Due to the inefficiency of "traditional playgrounds" for the continuity of "play", children prefer to establish their own informal play spaces, as it was before the introduction of formal ones. However, parental concerns regarding child's safety in the urban environment restrict the use of outdoor play spaces, especially the residential street which is the oldest

traditional informal play space. For these reasons, children's play habits changed and children today are becoming more dependent to indoors. If child's developmental needs are considered, the contribution of outdoor environment to the development of children should be reevaluated by making comparison between formal and informal play spaces.

Regarding children's needs and the contribution of outdoor environment to their development, some approaches have been developing and changing to design better play spaces. Thus, this thesis tries to clarify that what kind of approach would be efficient in order to provide permanent answers for the needs and rights of children and for the continuity of "play" in today's urban pattern.

Key words: play, play space, child's needs, child's rights, traditional playground, residential street.

ÖZ

ÇOCUK OYUN ALANLARI İLE İLGİLİ
DEĞİŞEN YAKLAŞIMLARIN
DEĞERLENDİRİLMESİ

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Ondokuzuncu yüzyılda kentsel alan kullanımlarının özelleşmesi ve ayrılması çocuk oyun aktiviteleri için kentlerde formel alanlar belirlemeyi gerektirdi. Ondokuzuncu yüzyıl sonunda çocuklar için “geleneksel çocuk parkları” temin edildi. Fakat, formel olarak tasarlanmış, mekansal olarak ayrılmış oyun alanı kendi problemlerini de birlikte getirdi. Kentsel dokuda meydana gelen hızlı değişimler ve kentsel mekandaki motorlu araç egemenliği çocuğun bu tarz oyun alanlarına tek başına güvenli ulaşımını kısıtladı. Ayrıca, “geleneksel çocuk parkı”nın çocukların ihtiyaçlarına cevap vermek ve oyun aktivitesinin sürekliliğine katkıda bulunmak açısından verimli olmaması da eleştirilmeye başlandı.

“Geleneksel çocuk parkları”nın “oyun”un sürekliliği için verimli olmamasından dolayı çocuklar, formel oyun alanları tasarlanmadan önce olduğu gibi, kendi gündelik (tasarlanmamış) oyun alanlarını oluşturmayı tercih ederler. Fakat, ebeveynlerin çocuklarının kentsel mekandaki güvenliği konusundaki kaygıları bu mekanlardaki oyun alanlarının,

zellikle de en eski, geleneksel gndelik oyun alanı olan ‘‘sokak’’ın kullanımını kısıtlamaktadır. Bu nedenlerden dolayı ocukların oyun alışkanlıkları deęişmiş ve gnmz ocuęu i mekana daha baęımlı hale gelmeye başlamıştır. Eęer ocukların gelişim ihtiyalarını dikkate alacak olursak, dıř mekanın ocuk gelişimine katkısı formel ve gndelik (tasarlanmamış) oyun alanları karşılaştırılarak yeniden deęerlendirilmelidir.

ocukların ihtiyaları ve dıř mekanın onların gelişimine katkısı ile ilgili olarak, daha iyi oyun alanları tasarlamak amacıyla bazı yaklaşımlar gelişmekte ve deęişmektedir. Bu tez ocuk ihtiyaç ve haklarına kalıcı cevaplar vermek ve gnmz kentsel dokusunda ‘‘oyun’’ un sreklilięine katkıda bulunmak aısından ne eşit bir yaklaşımın etkili olabileceęini aıklamaya alışmaktadır.

Anahtar kelimeler: oyun, oyun alanı, ocuk ihtiyaları, ocuk hakları, geleneksel ocuk parkı, sokak.

To My Family

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CHAPTER I

INTRODUCTION

I.1 General Framework

Children share the city, but use it and understand it in a different way than other segments of public. Participating actively in the outdoor environment is important for child's development and socialization. Play is the most common way of participating in the community and becoming part of the social life for children. "Play is a process by which children learn and come to terms with the social and physical environments" (Heseltine and Holborn, 1987; 11). On the other hand, in our contemporary world children have become more dependent to indoors due to the changing nature of childhood and play habits. Especially the restricted accessibility of children in the outdoor environment because of priority of automobiles in residential areas and parental anxieties about children's safety outdoors have made the children more dependent to indoor oriented play facilities. Also, insufficiency of formal play spaces that allow child's creativity and the general superficial thinking to the design of play spaces, can be considered as factors that change the nature of childhood and play habits.

"In the cities of the industrialised world, children may be threatened by traffic, pollution and a shortage of green and open spaces in which to play. In both rich and poor countries, urban children and adolescents feel increasingly imprisoned and isolated" (The International Secretariat for the Child Friendly Cities, 1996; "The Project: The Child Friendly Cities Initiative"). The lives of children today are much more structured and supervised and they have few opportunities for free play.

“The world once offered thousands of delights of free play to children. Children used to have access to the world at large, whether it was the sidewalks, streets, alleys, vacant lots and parks of the inner city or the fields, forests, streams and yards of suburbia and the rural countryside. Children could play, explore and interact with the natural world with little or no restriction or supervision” (White and Stoecklin, 1998; “Childhood of Imprisonment”).

The most important factors, which restrict children’s accessibility and free play in the outdoor environment by themselves, are the changes that came out with the increasing industrialization and technological improvement in the eighteenth and nineteenth centuries which led to specialization of land uses. With the innovation of motor vehicle in the nineteenth century, cities were restructured and walking distances increased and the perception, accessibility, free pedestrian movement and independent use of a space changed. Modern Movement brought zoning principles on urban space and segregated pedestrians from the walking distance of activities and resulted in the alienation of pedestrians within the community, especially the children. As stated by Tranter and Doyle (1996), one of the features of modern cities is not only large scale segregation of land uses, but very sharp segregation of adults from children.

Before the introduction of motor vehicle and segregation of land uses in modern cities, which transformed pedestrian areas to car dominated ones, children had independent use of a space and used to play in their informal play spaces, especially on the streets. With the introduction of Modern Planning principles, play facilities in formal play spaces were provided for children and the playground was introduced in the late nineteenth century.

On the other hand, playground lacked providing children with what they really need and from that time until now, its basic form has remained the same. The child is provided by traditional types of playgrounds in their neighborhoods, however only the provision of traditional playgrounds does not satisfy children’s needs. The provision of formally designed, spatially segregated play spaces has brought its problems itself. Since the nineteenth century, designers have been trying to find solutions for the needs of children and different approaches to play spaces have been developed in different countries.

“Planning for play does not mean only the provision of pre-school play spaces, junior and neighborhood playgrounds, but a much more sophisticated way of looking at the whole built environment and at children” (Heseltine and Holborn, 1987; 26). Since the formal play spaces do not provide children with the continuity of play at the whole environment, children

establish their own informal play spaces. Thus, to answer the needs of children, continuity of play and continuity of play provision especially in the child's immediate everyday outdoor environment will be the major concern in this study.

Valentine and McKendrick (1997) have stated the results of their research conducted in North West England to understand whether children's experiences of outdoor play is changing, by comparing contemporary children's play with both previous academic studies of children's independent use of space and with parent's accounts of their own childhoods. The results revealed that the vast majority of parents are dissatisfied with the public provision of play facilities in their neighborhood. Like in North West England, most of parents today are dissatisfied with the public provision of play facilities in their neighborhoods. Thus, the provision of indoor oriented facilities, such as after school centers, computer games in the homes and pay for play centers have replaced the outdoor play facilities of children.

Depending on child's developmental needs, it is important to understand which one, outdoor or indoor play facilities, contributes much to the healthy development of the child. "Contemporary research and practical experience show that access to and the quality of the urban outdoor environment as a whole is very important for children's development and understanding of the world" (Noschis, 1992). Also, "there is growing recognition that outdoor play experiences effectively stimulate young children's development" (Henniger, 1993, cited in Barbour, 1999; 75). On the other hand, today's children have problems of safe accessibility in the urban environment, even in the micro scale, in their neighborhoods. As stated by O'Neil et.al (2001), children's day to day experiences in their neighborhoods have been characterized as having both direct and indirect influences on children's development.

The results of research, recently conducted by Buss in five different areas of Urban Los Angeles, revealed that children have limited accessibility in the urban environment by themselves. According to Buss (1998), for many children, opportunities to learn new and different social skills, independent of their relationship with the family, are not available because they are not allowed to go outside alone into their neighborhoods. Because of their fears, many children are unable to occupy social space in their neighborhoods and instead move about in limited or constricted play zones. Thus, as adults, it is important to differentiate whether children prefer to be indoor oriented or they are pushed out from the outdoor environment.

Although children comprise a large group of users of the urban environment, they are usually restricted to places in it, such as playgrounds, designed to answer their needs and also to protect them from the risk of urban life. However, such kinds of places do not fulfill the different requirements and needs of children. The types and functions of playgrounds have been criticized and designers have been trying to find alternatives for the needs of children in our contemporary world.

To play in a safe, healthy and stimulating environment is necessary for physiological, perceptual, emotional, social and intellectual needs of children. Once we become aware of the importance of play, we should design environments which are better suited to the needs of children, who live in rapidly changing urbanism and we should give importance to the development of their full potential as healthy adults.

“The impact of outdoor learning environment on children’s play and development has received increased attention in recent years” (Brett, Moore and Provenzo, 1993; Rivkin, 1995, cited in Barbour, 1999; 75). This thesis tries to explain the necessity and importance of outdoor ‘play’, especially for today’s indoor oriented children’s needs. Concerning children’s preference, the focus will be investigation and comparison between formal and informal outdoor play space in order to understand what kind of outdoor environment can contribute much to the healthy development of contemporary children.

I.2 The Scope of the Study

In order to answer the needs of children for outdoor play facilities, the concepts of ‘play’ and ‘play space’ should be understood in a much more sophisticated way. However, definition of these two concepts can be highly problematic, since there are different groups of children with different needs. “This is most clearly evident with respect to age (compare the needs of pre-school children and teenagers, for example) but also in relation to gender and disability” (Thorne, 1987, cited in Valentine and McKendrick, 1997; 221). Therefore, in order to prevent possible complexities, in this thesis, the child in the school age (6-11 years old) will be the subject of the study, as the children in this period start to use outdoor environment by themselves while going to school and become much more acquainted with it. The most common way of participating in the community for children is through playing,

that is the children's ways of socialization. On the other hand, today's indoor oriented children have little chance to participate in the outdoor environment by themselves, even for playing.

In this thesis, depending on the 'play' concept and children's developmental needs, how and why they use, understand and evaluate the outdoor environment as a 'play space', will be analyzed. And, the major concern will be to support some views for the provision of safe outdoor 'play spaces' regarding children's preferences, since the children have the right to play in a safe and healthy urban environment.

As Tekkaya (2001) states, there are two international organizations which are interested in child's rights; comprising the 'child rights to play' and 'child rights for play environments'. These are UNICEF (United Nations Children's Fund) and IPA (International Association for the Child's Right to Play).

As stated by IPA (1977) United Nations recognizes that play is one of the fundamental rights of the child. In article 7 of The United Nations' Declaration of the Rights of the Child and in article 31 of the Convention on the Rights of the Child, it is stated that;

“The child shall have full opportunity to play and recreation, which should be directed to the same purpose as education; society and the public authorities shall endeavor to promote the enjoyment of this right” (article: 7).

“Every child has the right to rest leisure and an opportunity to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and arts” (article: 31).

IPA Declaration of the Child's Right to Play (1977) affirms its belief in article 7 of The United Nations' Declaration of the Rights of the Child, and endorses its belief in article 31 of the Convention on the Rights of the Child. World Conference Resolutions of International Association for the Child's Right to Play state that;

“In order to counteract too much passive play (e.g. television/videogames) and to encourage outdoor play, it is necessary to provide good and varied areas and facilities that attract children (Ljubljana 1984); In order to ensure the child's right to play everywhere, efforts must be made by urban planners and citizens to restructure the living environment towards creating multifunctional spaces for all people of all ages, especially the streets (Ljubljana 1984)”.

Children have not only needs but also rights to have opportunities for playing in suitable, safe and healthy environments. So, the quality and the components of contributory outdoor environments to the development of the child should be analyzed depending on both developmental needs and rights of children to have varied play opportunities. The provision of formally designed play spaces, such as traditional playgrounds, is not enough to provide children with varied play opportunities, quality of play and with what they really need. In most of traditional playgrounds, the quality is considered as the provision of play equipment for children's motor development within a defined, physically segregated setting. Such an approach can answer the needs of pre school children, but not the older ones. School age children's preference for any play space is not related only with such qualities; in general, their preference while choosing their play spaces is related with their creative, educational and social development. This can be considered as the basic factor why most of today's playgrounds are empty and why the child prefers to play in any informal play space, such as front or backyards of their homes, the residential streets, the sidewalk or any other vacant lots.

As Tranter and Doyle (1996) state, research incorporating children's views reveals that they place a high value on streets as play space. On the other hand, safety should be taken into consideration, because of the car priority on the residential street, which is not only one of the informal play space but also the channel to reach both formal and other informal play spaces. So, safety and access should be regarded as the most important factor for children's outdoor play facilities, in addition to the needs of children.

In order to understand what kind of outdoor environments are preferred as play space, children's basic developmental needs and their rights should go parallel with the environmental design, especially in the design of residential areas where the children spend most of their time.

In this context, objectives of this study are;

- to understand the concepts of 'play' and 'play space' and contribution of outdoor environment to children's developmental needs, which are physiological, perceptual, emotional, social, and intellectual,
- to analyze whether there is a standard quality on children's 'play space' or not.
- to understand whether there are standard components of contributory play spaces for child development or not,

- to understand, whether formal play spaces, especially the traditional playground provides children with five basic developmental needs and with other users's (parents and other adults) needs or not,
- to understand the function of informal play spaces for child development, especially the residential street,
- to compare 'formal play spaces' with 'informal play spaces' in terms of their contributions to physiological, perceptual, emotional, social, and intellectual development of the child,
- to clarify the needs and rights of today's children in the urban environment, especially in terms of their rights to play, which is vital for their development and socialization.

I.3 The Method

This study focuses on outdoor 'play' and 'play space' as an important factor for today's indoor oriented children's developmental needs and socialization via a survey of the literature about urban design, environmental psychology, child psychology and child-urban relations.

The method used here is a kind of *descriptive analysis* based on various publications, results of child study researches, field surveys, observations and impressions, and also interviews with both children and their parents. The aim is to understand their needs, preferences, concerns and expectations about the possible 'play spaces' and 'play' activities in their immediate outdoor environment. Therefore, in Yukarı Ayrancı district in Ankara, Turkey and Bensonhurst and Bayridge, Brooklyn, New York, USA, a kind of non reactive observational survey analysis was applied. This method is called as *unobtrusive method* in the literature and will be widely explained in chapter V.

The complexity of the concepts of 'play' and 'play space', and also the changing needs of children in different stages of childhood necessitate to study and make survey on a specific period of childhood. Therefore, this study focuses on the behavior, needs and preferences of the school age children (aged 6 to 11 years). The difficulties interviewing them and to have consistent answers lead the study to be conducted in a way mostly depending on observations and impressions on those children's play activities in selected sites.

I.4 The Structure of the Study

In this study, there are six chapters to explain childrens's needs, rights and preferences for outdoor 'play space'. All chapters include the lack of suitable 'play spaces', especially for school age children's needs and play activities. The necessity and importance of safe and accessible outdoor 'play' activities and 'play spaces' for today's indoor oriented children are explained throughout the study.

The second chapter, *Concepts of 'Play' and 'Play space'*, clarifies the changing nature of childhood and play habits because of some factors caused by Modernist Planning, technological improvement and parental concerns. By the help of some theoretical bases, the concept of 'play' and its social function are explained in order to understand its importance for child development. While explaining the function of play, the main concern is for children's developmental needs and the continuity of play. Related with the outdoor play activities, the function of a 'play space' is considered as a kind of 'public space' and explained depending on both children's rights and needs and their preferences. In this chapter, the basic aim is to understand what type of outdoor spaces are preferred and used as 'play spaces' by children. Therefore, a kind of comparative approach is followed.

The third chapter, *'Traditional Playgrounds'*, explains the function of playgrounds as 'play spaces' and also as public spaces. In order to understand how the introduction of formal play spaces have contributed to the outdoor 'play' activities of the child since the nineteenth century, development of formal play spaces will be explained briefly. And to make comparison between the child preference for formal play spaces, especially the traditional playground, and for informal play spaces, the issues of how and by whom today's traditional playgrounds are being used will be handled in the third chapter.

The fourth chapter, *'Residential Streets'*, explains the functions of residential street both in the past and today in terms of its contribution to child's play. In this sense, it is important to understand the motives for children to prefer the informal play spaces as opposed to the formal ones, especially the 'traditional playground'. In order to emphasize the contribution of residential street to children's outdoor activities, some urban solutions for children's environment will be analyzed. Such as a movement in street design '*the Dutch Woonerf*' or 'Play Street'.

While making the comparison between traditional playgrounds and residential streets, it is important to understand which one contributes more to the needs of today's contemporary children. Besides the needs of children, their rights in the outdoor environment will be focused, and safety and accessibility will be the major concern. In order to develop an understanding of this issue, survey analyses are carried out in Yukarı Ayrancı district in Ankara, Turkey and Bensonhurst and Bay Ridge, Brooklyn, New York, USA. The results of the analyses will be explained in the fifth chapter.

The significance of these particular districts is that, there are families from different income levels and they have different levels of socio-economic status, which may cause differences in the use of outdoor environment. Different social groups who live in the same neighborhood can give clues about the differences of play habits of children. Children can be from different income levels or different social groups, but if they share the same living environment and the same play spaces, they need some common environmental features which satisfy their developmental needs.

Design of play environments for several play activities should have variety of settings for different purposes and natural features. Such kind of play environment helps the development of child's physical, emotional, social and intellectual abilities, while creating green space and amenity to the community. On the other hand, high speed of today's urban development deprived children from such solutions and parents have been trying to provide indoor oriented play facilities for their children. Therefore, the aim of the survey analyses is to understand how the lack of contributory play spaces influences the play habits and developmental needs of these children.

The Sixth Chapter, *Conclusion*, presents the evaluations and the critiques of the approaches developed to answer the needs of children regarding their play facilities in their immediate everyday outdoor environment. In order to evaluate their rights to 'play' and to have contributory environments to their development and socialization, some procedural suggestions are stated in the sixth chapter.

CHAPTER II

CONCEPTS OF 'PLAY' & 'PLAY SPACE'

It is difficult to explain what 'play' is with one simple definition. "The difficulties involved in isolating the process of play and the function it performs in the growing child are a measure of the complexity of the process and its centrality to the development of children" (Heseltine and Holborn, 1987;16).

As the child develops and grows, his/her needs change, and so his/her preference for the types of play and play space changes. The complexity of the process of play can be related with the developmental stages of the child, that is why it is difficult to explain 'play' concept. As outlined in the first chapter, in this study 'play concept' will be analyzed depending on the school age children's developmental needs and preferences in the outdoor environment.

The requirements for play and the needs of children can change and vary depending on the types of play spaces. Thus, 'play space' is another concept which should be analyzed parallel with 'play concept'. Play space can be outdoor and indoor and can be formal or informal. So, in order to prevent possible complexities about the definitions of 'play' and 'play space', in this study the focus will be on the outdoor play spaces, especially the 'traditional playgrounds', which are formal play spaces and the 'residential streets', which are informal play spaces.

Another complexity about the definition of 'play' and 'play space' can be related to some factors, which had influence on children's play habits, such as the changes that came with the introduction of Modern Planning principles and technological improvements. As

stated in the introduction part, play habits of children have been changing, becoming more indoor oriented.

II.1 Changing Play Habits of Children

“With rapid increases in urban population, children are fast becoming important users of the urban environment. Thus to large numbers of children, the urban environment is increasingly becoming the place to live, the place to grow up, and the place to learn. However, in the face of urbanization, cities are becoming less accessible to children, less equipped to cater to their needs and to foster appropriate development” (Gunawardena et.al., 2003; Children’s Environments Research and Design Group in School of Architecture and Urban Planning, University of Wisconsin-Milwaukee).

In our contemporary world, there is a problem of designing appropriate environment for the needs of children and their activities. The lack of appropriate play spaces, the difficulties to reach the existing playgrounds, the superficial thinking on the design of playgrounds and parental concerns about their children’s safety in the outdoor environment can be considered as the factors which caused the children to change their play habits. On the other hand, if the major concern about ‘play’ and ‘play space’ becomes the children’s developmental needs, their preference and satisfaction, the importance of outdoor environment for child play can be understood, especially for the school age children. As the children grow, they start to make more acquaintance with their most intimate outdoor environments, and the outdoor world becomes the site for learning.

“The outdoor learning environment is the site of the highest level of children’s activity. It represents, at best, a potential site for investigation, exploration and practice of skills at various levels of complexity”(Weaver, 2000; Master’s Thesis Abstract). Unfortunately, today’s children have little chance to explore the outdoor world by themselves. The outdoor world beyond children’s home is used less by them today than in the past and parents have been trying to provide children with some opportunities for play, which make children ‘indoor’ oriented. “There is substantial evidence that children’s freedom to independently visit places within their own neighborhood has been decreasing significantly, even over the last generation” (Hillman et.al., 1990; Hillman, 1993; Tranter, 1993; Tranter and Whitelegg, 1994, cited in Tranter and Doyle, 1996; “The Changing Function of the Street”).

II.1.1 Factors That Make Children Indoor Oriented

“The city, under inevitable modern conditions, can no longer be dealt with practically by children because concealed technology, family mobility, loss of the country, loss of neighborhood tradition, and eating up of the play space have taken away the real environment” (Goodman, Paul, 1961, cited in Ward 1978; vii). As outlined in the introduction part, modern movement restricted children’s accessibility in the outdoor environment by themselves, while providing them with formally designed play spaces.

Our contemporary world offers both advantages and disadvantages for the child’s development and socialization. For example, designed playgrounds for children has gained much more importance since the late nineteenth century, on the other hand, modernization, intense use of land and increase in the number of automobiles caused to the decline of pedestrian environments, like playgrounds. In addition with the technological innovations, play habits of children have changed and the child has become more dependent to indoors.

“ It seems to be presumed that children today (unlike those in the past) have few diversions of their own, that they are incapable of self organization, have become addicted to spectator amusements, and will languish if left to rely on their own resources. It is felt that the enlightened adult is one who thinks up ideas for them, provides them with ‘play materials’, and devotes time to playing with them. Certainly our attitude to the young has changed since the nineteenth century” (Opie and Opie, 1969; v).

“Children have little time for free play any more. And when children do have free time it’s often spent inside in front of the television or computers” (White and Stoecklin, 1998). Today, children have been utilizing from the advantages of technology and their parents are willing to provide them with indoor oriented facilities, because they have serious concerns about their children’s safety in the outdoor environment. “The middle class have responded to the crisis of safe public play provision by buying all kinds of private alternatives: ‘pay-for-play’ centers, children’s museums, private gym clubs, after school classes, etc. They are not making demands for public play spaces as much” (Hart and Iltus, 2001). This can be considered as the case for upper and middle income families, but lower income families may not have so much chance to prevent their children from playing outside. What is common about both upper-middle and lower income families is that their children live in the environment where there is no adequate, safe and accessible play spaces. Since all children need to develop their basic needs, they occupy any space as their ‘play space’, when they have a chance.

According to Tranter and Doyle (1996), residential streets have played an important role in cities as play spaces for children. On the other hand, “every generation assumes that the street games of its youth have been destroyed by the modern city” (Ward, 1978). The street games are replaced by the computer games or other indoor oriented ones. Families with high and middle income levels provide their children with the benefits of technology and give them alternative play facilities. As it will be explained in the following chapters, children prefer outdoor play, whether they are from upper, middle or lower income families, due to the fact that they all need to develop themselves socially, physically, psychologically, cognitively and educationally. For healthy development, the child needs variety of environmental experiences. “You cannot keep your children under house arrest. If you attempt to do so, they will escape, and if they don’t escape, they will undoubtedly have been deprived of vital environmental experiences” (Ward, 1978 ; 125).

As adults, we should respect the needs of all children from different income levels and provide them with equal rights to have safe and healthy ‘play spaces’. To do so, the concepts of ‘play’ and ‘play space’ should be understood in more detail.

II.2 What is ‘Play’ ?

There can be lots of definitions for play from different fields of studies, but in this study, the focus will be given to the importance of outdoor play, to support the idea that says all children need healthy, safe and accessible environments in which they can play while developing their basic needs. “Children's free play is a complex concept that eludes precise definition, but children's play typically is pleasurable, self-motivated, imaginative, non-goal directed, spontaneous, active, and free of adult-imposed rules” (Hughes, 1991; Frost and Jacobs, 1995, cited in White and Stoecklin, 1998; “Playground Paradigm Paralysis”). Ward (1978) emphasizes Arvid Bengtsson’s definition of play, which says “play is a constant happening, a constant act of creation in the mind or in practice”. Also, play is defined by international organizations;

“PLAY, along with the basic needs of nutrition, health, shelter and education, is vital to develop the potential of all children. PLAY is communication and expression, combining thought and action; it gives satisfaction and a feeling of achievement. PLAY is instinctive, voluntary, and spontaneous. PLAY helps children develop physically, mentally, emotionally and socially.

PLAY is a means of learning to live, not a mere passing of time” (1977, IPA Declaration of The Child’s Right to Play).

These are the most common definitions for ‘play’ and it is clear with these definitions that for healthy development, the child needs the freedom of play in the outdoor environment, which contributes much to the physical, mental, emotional and social development. In addition to these definitions, to be able to comprehend the vitality of play for child development, some theoretical bases, which interpret play, should be explained.

II.2.1 Theoretical Bases For Interpreting Play

Heseltine and Holborn (1987) has stated that philosophers; such as Plato and Aristotle and educationalists such as Comenius, Rousseau, Groos and Froebel have been interested in the importance of play for children’s development. Plato and Aristotle believed that it is essential to the development of healthy children. In modern times, Freud and Erikson affected the view of play. Freud saw play as a means by which children assimilate experiences and Erikson by developing Freud’s theories, saw play as a developmental process by which children acquire new and more complex knowledge. And psychologist Jean Piaget defined play as a biological model of interaction between child and environment.

The play environment can be outdoor or indoor. In any case children need some information through which they can develop their needs. As to be in the past, today’s indoor oriented children also prefer to play in the outdoor environment, since they receive much more information within the outdoor world. And for healthy development, the child needs balance between the received information and its assimilation. The lack of information can cause the lack of assimilation and so the problems of accommodation to the environment. This is the case for today’s ‘indoor’ oriented children, who have little chance to assimilate the information in the outdoor world, so they have problems about the accommodation to where they live and about socialization. The assimilation of received information and accommodation to the environment in which the information received, is important for the perceptual, emotional and intellectual development of children.

“Piaget’s work presented two functions as basic to human development- assimilation and accommodation. Assimilation: referred to the process whereby children changed the information received into terms which could form part of their body of knowledge. Accommodation: related to the changes children must make to

their environments in order to be able to assimilate information. The development of intellect occurred when there was a balance between the two. This process Piaget called play” (Heseltine and Holborn, 1987; 16).

Assimilation and accommodation are important concepts for play and development of children, since the children receive information from the outdoor environment and they need to assimilate them in order to accommodate to outdoor world. Play is the children’s way of accommodation to the outdoor environment. Piaget’s (1970) works explained the stages of child development and had influence on the researches about ‘play’ and play spaces of children. His works can be considered as a theoretical base for ‘play’. “In relation to play areas, five particular themes are developed from this theoretical base for interpreting play” (Heseltine and Holborn, 1987;16);

1. Environmental: Children employ the environmental information in their intellectual development. And the society should ensure children receive information which;

- is life enhancing,
- provides a range of choices and experiences,
- is stimulating and challenging.

If the ‘indoor’ play spaces are compared with the ‘outdoor’ ones, it is obvious that outdoor play spaces can provide children with more stimulating and challenging information with a range of choices and experiences. Researchers, such as Moore, Goltsman, and Iacofano (1987) gave attention on the physical environment, where choice and diversity are the keys to success and state that “the design of good play environment requires an interdisciplinary understanding of human development, and how that development can be stimulated by both natural and manufactured settings”. Outdoor environment can provide children with variety of information and children find these information more stimulating and challenging. Due to the richness of ‘variety’ in terms of diversity, complexity and surprise, the outdoor environment comes to children as being more attractive. So, ‘variety’ can be considered as the factor that has influence on the children’s preference for play spaces, as will be explained in section II.4.3.

On the other hand, to design stimulating environment for children, designer may come across with some problems, since the requirements and needs of children are different from the adults. If any designed play space is not rich enough to stimulate the children, they prefer

to play in any informal play space, which arouses their interest, such as sidewalks, front yards, back yards, and especially the residential streets. “The busier the street, the more appealing to children”(Young, 1980, cited in Tranter and Doyle, 1996).

In comparison to traditional playgrounds, children may evaluate the residential streets as being more appealing because of the variety of environmental information that stimulates them. The elements of variety in residential streets, which are diversity, complexity and surprise, provide children with much more environmental information. Thus, “Making Streets Livable...is the topmost action that would advance both children’s access to diversity and the child’s right to play” (Moore, R.C., 1986; 51).

2. Physiological Development: According to Heseltine and Holborn (1987), play is a part of process by which children learn to develop some of the motor skills necessary for their intellectual development. If movements are badly co-ordinated, there can be problems for intellectual development.

“Through the use of equipment which is, for example, unpredictable, the child can develop spatial and visual perception. The importance of learning this through play, rather than through taught or received learning, is that the child assimilates the concepts, accommodating them at his or her own pace and his or her own way” (Heseltine and Holborn, 1987; 17).

On the other hand, the function of play in physiological development has not always been fully appreciated and that is why there is a superficial thinking to the design of formal play spaces and play equipment in them. Today’s ‘indoor’ oriented children have being restricted in terms of developing their physiological skills and so the intellectual ones, due to the fact that they usually have to play with what is given to them, have to play in designed play spaces under the supervision of adults; such as playgrounds, play centers, after school centers, etc.

The superficial thinking has led to the design of traditional playgrounds with fixed, non portable equipment which is boring for children and which restricts their physiological, intellectual and creative developments. Such kinds of equipment do not answer the needs of the child as he/she gets older. The lack of traditional playgrounds in terms of meeting school age children’s needs will be explained in the third chapter.

While developing their physiological needs, children want to explore by themselves and they like diversity and surprises rather than the environmental information or equipment which are prepared for them or to which they are accustomed. In comparison to the traditional playgrounds, the residential streets have more opportunities as being informal play spaces, where children can develop motor skills necessary for their intellectual development. As Heseltine and Holborn (1987) state, the street is the child's immediate environment- it is near to home, it is a world full of movement, involvement and people.

“ Where playspaces are provided they work best, and have the greatest value, where they become part of the environment around the home and community. When a living street implemented, the ability to reach larger or alternative play opportunities further from the home is enhanced because children have a greater range of mobility”(Heseltine and Holborn, 1987; 74).

On the other hand, because of safety concerns, today's children have restricted mobility and freedom of action in the outdoor environment, even in their immediate everyday outdoor environments.

3. Creative Development: According to Heseltine and Holborn (1987), if children are not provided with sufficient good quality opportunities and encouragements to practise their creative abilities, the use of these abilities appears to become less spontaneous. Creative play offers opportunities to develop a flexible approach to problem solving. Creative development can be provided with the limitations of the fixed equipment playgrounds, which prevent children's creativity. Creative play comes through the provision of loose materials and alternative uses of materials stimulate the creative development.

In this study, one of the purposes is to stress the lack of play spaces which stimulate the creative development of children, and to stress on the lack of creative play equipment for the school age children. So, informal play spaces will be compared to the formal ones, especially the residential street will be the basic research area in terms of its 'variety', which can be considered as the factor that improves creative development of children.

4.Educational Development: “Piaget has pointed out that a primary goal of education is to develop men and women, who have the ability to do new things, not simply repeat what previous generations have done-people who create, invent and discover” (Heseltine and Holborn, 1987; 18). Since the fixed equipment in playgrounds is incapable of change, and

since such equipment does not allow child's creativity, it can only develop these critical facilities to a limited extent.

Traditional playgrounds can help children to identify some concepts; such as shape, size, number, the relationship between the parts, etc. On the other hand, "educative environments are ones in which there are many opportunities for learning through experiencing. They are rich in a variety of accessible behavior settings. Such environments possess a wide variety of potential experiences for people from childhood to old age" (Lang, 1994; 306).

Traditional playgrounds can be regarded as educative environments for pre school children, but the school age children need more than these basic concepts, they want to explore and challenge, they like surprise, diversity and complexity. In comparison to traditional playgrounds, informal play spaces can be regarded as having more potential for children's educational development. If children can not find enough opportunities in playgrounds, they prefer to play in other 'play spaces', especially on the streets.

5. Social Education: Play is important factor in the social education of children. As stated by Heseltine and Holborn (1987; 18), appropriate play spaces provide the opportunity for children to meet and interact with each other, to begin to develop, act out and talk through their developing ideas of social roles. And as children get older, their capacity and need to interact face-to-face increases and play takes place more in groups.

Today's 'indoor' oriented children have little chance to meet and to interact with others and to play in groups. The lack of suitable play spaces, the distance of existing ones, and the lack of opportunities in them deprive children of being social contact with their peers. However, because of the possibilities and opportunities in terms of meeting and interacting with others, the street can be attractive play space for children. Researches reveal that children prefer to play on the residential streets, as Gür (1999) states that, by providing the continuity and permanence of play, residential streets help children to establish friendship and solidarity.

When the child starts primary school, he/she has a chance to meet, to interact and to contact with their peers. So, they start to be more social, without the interference of their parents and it affects the way how, where and with whom they play with. For school age children, the

social side of 'play' becomes more important and so, they prefer to play in the 'outdoor' play spaces, in which they can have more chance to have social relationships.

II.2.2 The Social Function of 'Play'

As Dattner (1969) stated, the writings of Freud and studies of child-rearing practices in a variety of cultures established the importance of childhood experience in the development of the adult personality and demonstrated that play is a major component of that experience.

Play is one of the ways through which children prepare themselves to participate in the adult world. Today's indoor oriented children have less chance in participating in the outdoor world in comparison to their parents and grandparents. On the other hand, they need experiences and opportunities to develop their social sides. "Children who have the opportunity and are allowed to independently roam, play and explore have been shown to have better developed intellectual and social skills than their peers" (Weinstein and David, 1987, cited in Lang, 1994; 307). Thus, the outdoor environment should be better suited to the needs of children, since children can learn the rules of adult world only by sharing that world with them.

Dattner (1969) stated that children learn the rules of the adult world they will inhabit from the rules of their play as children. Both the best and the worst aspects of a society are first learned in play. Play in this sense, is necessary for children to prepare themselves for adult world. Like all adults, children have the right to share the outdoor world. The way how children play reflects the way how their culture respects to them. Thus, nobody has the right to restrict the children to play only in designed play spaces.

The nature of childhood requires to play wherever they want, it does not mean that the whole outdoor world should be designed for children's play, but their needs and rights should be considered while designing any public space, whether for play purposes or for other activities. Also, there is a fact that play does not only mean to develop motor skills, most importantly it is the child's way of socialization. In this sense, play is important for the healthy development of children. Thus, the importance of play and the contribution of outdoor environment for the development of children should be explained in detail.

II.3 Importance of Outdoor Environment for Child Development

There are several approaches regarding the child development, in this study the ‘ecological approach’ is explained briefly in order to understand the importance of immediate everyday environment of home, school, or neighborhood for the development of children. “By looking at systems that affect individuals in and beyond the family, ecological approach shows the interrelated influences on child development” (Papalia et.al., 1998; 15).

According to Papalia et.al. (1998), a useful way of classifying environmental influences is by immediacy of impact, so they emphasize the American psychologist Urie Bronfenbrenner’s (1979, 1986, 1994) *ecological approach*, that identifies five interlocking levels of external influence, or context of development, from the most intimate to the broadest.

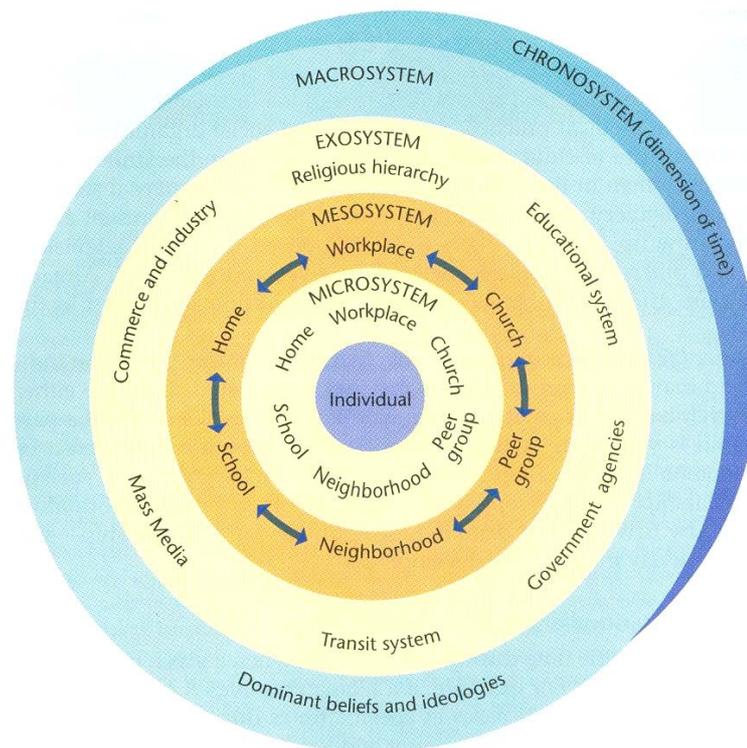


Figure 2.1 Bronfenbrenner’s ecological model. Concentric circles show five levels of environmental influence, from the most intimate environment (innermost circle) to the broadest-all within the dimension of time.

Source: Papalia, et.al., 1998, p: 14; adapted from M.Cole & Cole, 1989

Bronfenbrenner's system of understanding development identifies five interlocking levels of environmental influence: the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Since the *microsystem* is the immediate everyday environment of home, school, or neighborhood, it can be useful to observe and analyze the everyday life of school children and their play habits in their immediate outdoor environment, which is neighborhood.

As demonstrated in figure 2.1, neighborhood is the immediate outdoor environment in the microsystem. So, in this study, the major concern is to observe and analyze the play spaces and activities of children in the most intimate environment, since environmental factors in microsystem influence everyday life of children and their play habits.

As stated by O'Neil et. al. (2001), the neighborhood environment has increasingly come to be viewed as an important context for children's development. "Bronfenbrenner (1989), Furstenberg, Cook, Eccles, Elder, and Samerof (1999), and Garbarino (1982) have argued convincingly that physical, social, and cultural aspects of contexts such as the family, school, and neighborhood represent interesting spheres of influence on children's development" (O'Neil et.al., 2001; Introduction).

The mobility of the child in the home range increases as the child gets older. While explaining the home range and child activity, Birkeland-Corro (2003) states;

“4-5 years old: centred around the home, in view of parent. 15 m from door, lateral movement 25-40 m.

6-9 years old: up to 150 m from front door. 450-1000 m path length. Activity destinations are friend's houses, playground and school.

10-12 years old: large range of local places; destinations further a field, including undeveloped bush areas” (Corkery, 1988; Cunningham and Jones, 1991, cited in Birkeland-Corro, 2003; “Home Range and Gender”).

Garbarino (1982, cited in O'Neil et.al., 2001; 136) suggests that neighborhood experiences play a direct role in children's development by serving as an arena for exploration and social interaction. On the other hand, most of today's children's mobility is restricted even in the immediate environment and they have problems of accessibility. So, they do not have much opportunity to experience the outdoor world by themselves, which influence their development in a negative way. “Children who are less restricted in their access to the

outdoors gain competence in moving through the larger world. Developmentally, they should gain the ability to navigate their immediate environs (in safety) and lay the foundation for the courage that will enable them eventually to lead their own lives” (National Association for the Education of Young Children in Washington, DC, USA, 1997).

Also, information from the outdoor environment stimulates the child in several ways, and contributes to ‘play’ by allowing social interaction.

“As children play in outdoor environments they develop the social behaviors needed to interact with others, the emotional strength needed to work through adversity, and the cognitive skills needed to overcome problems. Offering children stimulating outdoor environments and time to play freely are two of the best ways to ensure that children have the opportunity to develop to their full potential” (Brown et al., 2003; Conclusion).

To have opportunities to experience the outdoor world is important for the healthy development of the child. Moore, G. (1987; 63), in describing the importance of outdoor environment for cognitive development wrote; “The environment involves physical components that have measurable impacts on cognitive development”. Outdoor environment is important for child development in terms of providing children with the opportunity of unstructured physical play and through the unstructured play children express and work out emotional aspects of everyday experiences.

In comparison to the indoor oriented play, the outdoor environment can be regarded as providing the child with opportunities for investigation, exploration and practice of skills with various activities and contributes much to the developmental needs of the child.

It is clear that outdoor environment, especially the immediate everyday environment plays a crucial role on the healthy development of children. However, today’s children have little chance to explore the outdoor world beyond their homes by themselves. “Research has indicated that play opportunities for children in the urban environment are becoming increasingly limited. Children’s home range has consistently declined in urban settings due to a variety of reasons and may have contributed to reduced play opportunities” (Sivakumaran, 2003; “A Doctoral Dissertation”). As stated by Hillman (1999), it is obvious that when children do obtain parental ‘licence’ to travel on their own, there are fewer outdoor public spaces for their social and recreational activity owing to the appropriation of streets for traffic and parking.

Fortunately, researchers are aware of the importance of children's participation in the outdoor environment and even their participation in the construction of their environments. But, "it is unfortunate that children can't design their outdoor play environments. Research on children's preferences shows that if children had the design skills to do so, their creations would be completely different from the areas called playgrounds that most adults design for them" (White and Stoecklin, 1998; Introduction).

Assistant Director-General For Social and Human Sciences in UNESCO, Pierre Sane (2002; Foreword) says;

"Children and youth are seldom involved in the construction of their environments. They are considered too inexperienced, too unrealistic, too unqualified. Yet their fresh perspectives may be exactly what is needed to see clearly into the realm of new possibilities. It is my strong conviction that tapping into young people's ideas and reflections to improving our cities".

The child has the need and the right to participate in the outdoor environment by themselves, while playing, going to school or experiencing the outdoor world beyond their homes. In order to provide the child with what they really need, their participation in the construction of their environments is crucial, especially for the construction of play spaces, since the adult designer can not fully predict what the children need and prefer in play spaces. The lack of child participation and the lack of understanding on child's developmental needs can be considered as reasons why most of traditional playgrounds are empty, neglected or used out of design purposes. While designing any play space, the designer should understand and answer the child's developmental needs.

II.3.1 Children's Developmental Needs

As explained in section II.2.1, the themes that explain 'play' in relation to play areas, outline the importance of play for the physical, creative, educational and social development of children in relation to the environmental information in play spaces. So, environmental information can be regarded as the components of successful and contributory play spaces, in which there is a balance between the assimilation of environmental information and accommodation to that environment. In order to provide children with this balance, environmental information should stimulate them physically, perceptually, emotionally, socially and intellectually.

Eriksen (1985) stated that there five kinds of stimulation, which should be provided for the development of child;

1. physical stimulation: According to Eriksen (1985), it should be sensory and motor. Sensory stimulation includes impressions received through the senses, touching and being touched, seeing colors and forms, hearing sounds. All development begins with sensory response; if an environment rich in sights and sounds, it contributes to the child's development. Motor stimulation is also important, it includes large and small muscle play and activities that support eye-hand, eye-foot coordination. Research shows that if children are allowed for more physical activities, the healthier, livelier and happier they will be.

2. perceptual stimulation: According to Eriksen (1985), the need for perceptual stimulation is connected with the need for sensory and motor stimulation. To perceive is to put stimuli in order to learn to recognize patterns, such as the recurrence of a familiar street or the repetition of sounds as rhythm and music. Perceptions about sensory and motor experiences will increase as children experiment with and repeat activities.

3. emotional stimulation: According to Eriksen (1985), emotional stimulation is essential for children to improve their abilities to deal with difficult or stressful situations. Children must actually experience emotions in order to develop them within themselves. They must know the joy and terror of swinging high, the anger of being shoved out of line, the satisfaction of exploring on a nature walk.

4. social stimulation: According to Eriksen (1985), socialization is at the core of the learning process. It means trying on self images, connecting with peers, and working out human relationships. Socializing is part of the process by which we acquire the resources for growing up.

5. intellectual stimulation: According to Eriksen (1985), intellectual stimulation is important in the play setting as in the classroom. Activities that are important for the development of intelligence are: exploring, working on one's own, communicating, using new materials, fantasizing, and undergoing new experiences. Intellectually stimulating activities are those that encourage children to be curious and to wonder; to investigate independently what things are, how they function, and how they relate to one another; to solve problems and understand situations with others.

In this study, the quality of children's 'play space' is explained depending on the variety of environmental information for the development of children's basic needs. Also, other components of contributory play spaces will be explained depending on the needs and rights of the users. First, the concept of 'play space' should be explained in order to evaluate what kinds of components that contribute much to the development of the child.

II.4 What is 'Play Space' ?

There are many definitions for play space; types of playgrounds are grouped as play spaces, whether indoor or outdoor. In this study, the attention will be given to one, which was employed by architect Aase Eriksen. Eriksen (1985) stated that the solution to modern playground is to create a play environment and she (1985; 57) employed the word 'playscape', defining it as an outdoor learning environment designed to support and suggest activities that are an essential part of the child's learning and development (social, emotional, cognitive and physical). It affords spatial and textural diversity, recognizing that play is a continuous process that occurs through time and space. On the other hand, today's playgrounds don't meet this definition and children prefer to establish their own play spaces for the continuity of play.

Play spaces can be formal; which are designed for the special purpose of children's play activities, or informal; which are not designed for children's play activities, they can be any incidental space. In this sense, Eriksen's definition is important in terms of describing the outdoor environment, in which the child plays, as a learning environment.

As explained previously, children have the right to play and to have play spaces. They may claim to play in any outdoor environment, in any public space. Play is one of the way for social and educational development, and the child may claim any outdoor environment as his/her learning environment. So, besides the designed formal play spaces, children establish some informal play spaces whether they are safe, suitable, healthy or not. That is why, planners, designers, landscape architects, local government, and the whole community should give special attention for providing children with a safe, accessible and healthy environment while considering the importance of child participation in the construction of their environments.

Before the changing pattern of urban environments in the nineteenth century, which led to land use specialization, there was no restriction for public open space and no need to identify formal space for children to use for playing. Modern Movement resulted with the identification of formal play spaces for the use of children, however, they lack of meeting the needs of the child. Thus, new approaches for improving the conditions of play spaces have been developing, but the child prefers to explore his/her own opportunities to play in.

II.4.1 Opportunities for ‘Play Space’

Where children play depends on a whole range of factors. Whether and how they play outdoors is influenced by several factors; their age, interests, experiences, types of play equipment, other physical and natural elements, their parents’ feelings about their safety and security, the accessibility of open spaces they might want to use, and the variety and attractiveness of potential play spaces. In general, child’s preference for play space depends on the variety of environmental information that stimulates them physically, perceptually, emotionally, socially and intellectually.

“One thing that observation of the behaviour makes clear, though it has only recently entered the word of reports and textbooks, and has yet to affect environmental policies, is that children will play everywhere and with anything” (Ward, 1978; 86). According to Krohe (1996), kids tend to see the whole world as a playground, usually with results that annoy adults. As outlined throughout the study, children play wherever they are. They can play in any place that they find stimulating information but which are not really there as play spaces. So, ‘play spaces’ can be divided into two groups; formal play spaces and informal play spaces.

Playgrounds, sport fields, pay for play centers can be classified as designed outdoor play spaces. Playgrounds differ from other designed play spaces with their design purposes to develop social, emotional and cognitive skills and with their equipments. The playground was introduced in the late 19th century with equipment such as swings, slides, climbing structures, seesaws, and whirling toys.

“Play in the 1890s had been seen as improving to children in moral and physical senses, with scant concern for learning in the intellectual and social senses” (Krohe, 1996). Within

time, new approaches to the design of play spaces were developed. As stated by Krohe (1996), healthful play in the 1970s meant giving the children chances to develop social and problem solving skills and the playground was re-invented in 1970s. In the past several decades, technological innovations have changed the structure and appearance of play equipments in playgrounds but its essential form remains the same.

As stated by Arnold (2003; part 3), there are three major types of playgrounds according to their contribution to the child development;

“Traditional type: The National Recreation Association in USA in 1900’s developed guidelines for certain equipment for playgrounds like providing a sand box, swings, a small slide and a climber. This is known as the traditional playground. Slides, swings, see saws, etc. Identifiable to children, but does not provide for cognitive and social play.

Contemporary type: joins or connects different pieces forming a continuous piece known as the superstructure or multi functional structure. Less numerous, more costly, like more by kids than traditional playgrounds.

Adventure/creative type: contains loose parts like old tires, lumber, crates and other materials. Allow children to create their own things, provides flexibility, needs a play leader, and satisfies cognitive, social and physical developments”.

In Metin’s (2003) words, Cohen and his friends (cited in Hayward, Rothenberg, and Beasley, 1974) clarified the preferences of children as follows:

“Traditional play areas are not as popular with children as contemporary and adventure play areas. Of children questioned at each play area:

At traditional: 15,4 % prefer traditional

At contemporary: 55,2 % prefer contemporary

At adventure: 75 % prefer adventure” (Cohen et.al., 1994, cited in Metin, 2003; 30).

The Caplans (1979, cited in Heseltine and Holborn, 1987; 11) believe that most public playgrounds are a disaster area for young children. It would appear they are designed by adults who do not know the needs of children.



Figure 2.2 Traditional Playground
Source: Personal archive



Figure 2.3 Contemporary Playground
Source: www.aila.org.au/victoria/images/awards_images/design/carlton/15c.jpg



Figure 2.4 Adventure Playground
Source: www.ci.berkeley.ca.us/marina/marinaexp/adventplgd.html

The value for 'play' and the value for 'child's right to play' have taken different forms in different periods. The result was the innovation of 'contemporary playground' and 'creative playground' but they also lack of providing the contemporary child with what they really need. "Designers and researchers over the last three decades have sought to influence playground design and development to increase the play value of manufactured play equipment" (Friedberg & Berkeley, 1970; Hewes & Beckwith, 1975; Rivkin, 1990; Thompson, 1996; Frost, Wortham & Reifel, 2001; cited in Brown et.al., 2001; "Promoting Dramatic Play in Outdoor Environments"). On the other hand, only the provision of manufactured equipment within a physically segregated and formally designed play space can not be a solution to answer the needs of children. That is why, the purpose of types of playground and their contribution to the child development have been criticized but playgrounds changed little in design or in purpose.

Manipulability of the environment is the essential property of play behavior. "If the play environment fixed, children can't manipulate the environment and adapt it to their needs" (Krohe, 1996). If the 'fit' of a play environment does not match the needs of children, they either manipulate the environment depending on their expectations, but mostly prefer to establish their own play environments. Children may want to play in any space which are not designed for play purposes; they can be; streets, sidewalks, backyards, frontyards, school yards, incidental spaces (front step of home, building under construction or any fields).

Banerjee (1995) defines these kinds of spaces, which are not designed for any specific play purposes, as "unprogrammed" ; the local streets, the courtyards between apartment blocks, the apartment staircases, or the spaces between buildings. His researches on the young adolescents (between the age of 13-15) in Argentina, Australia, Mexico and Poland revealed that they like to use "unprogrammed" spaces, where they talk, meet, walk about together, play marbles or informal games. Streets are immediately at hand, and they can do what they like there-unlike home, where the claims of adults take priority.

As stated in the introduction part, continuity of play and play provision in the outdoor environment is the major concern for today's indoor oriented children. The child's restricted mobility in today's urban pattern creates the problems of accessibility to existing play spaces. Also, the lack of sufficient design principles that suit the needs of the child and lack of creative play opportunities in the existing play spaces can be considered as factors that prevent the continuity of play for today's children.

Children provide themselves with informal play spaces in order to establish the continuity of play and play provision; proximity to home is important factor for children while establishing their informal play spaces, such as front yards, backyards, sidewalks and residential streets are considered as more easily accessible than playgrounds. Such kinds of ‘unprogrammed’ spaces can provide the child with opportunities for play, but it may be difficult to establish the permanence of play activities in such kinds of spaces. Such as in residential areas, the front yards and backyards are claimed as the adult property, and the residential street is only for cars. The child has to create opportunities for play spaces depending on the adult’s claim on the space. Such as the results of Newman’s (1972) observations on Tower Hill, St. Louis, USA reveals that the emptied parking area daily becomes a significant play space for the children since a good percentage of the vehicles are in use during the working day.

It seems that there is a dilemma about children’s play spaces, since the children usually prefer to play in spaces which are not designed for play purposes. On the other hand, the lack of permanent and constant territoriality in informal play spaces can be regarded as restrictions for continuity of play. Informal play spaces, such as back yards, front yards, or parking lots can be parts of child’s play environment, but the function of residential street differs from such kinds of informal play spaces, as being both an informal play space, channel of movement for children and also public space in which social relations occur. Within these informal play spaces, the residential street functions in many ways for the development of children. In this sense, play does not only mean the development of child’s physical abilities, the social and educational contribution of play should be considered. Thus, the residential street as being a public space in which social interaction occurs is important property for child’s outdoor play and its contribution to the child development will be explained in chapter IV in detail.

Whether formal or informal, any play space should provide the child not only with physical development, but allow the creative, social and educational development. For healthy development of the child and for the continuity of outdoor play, accessibility can be considered as the major factor that influence the child’s participation in the outdoor environment. As the child grows, his/her need for outdoor mobility increases, and the play means them a way of socialization. “As they grow up and begin to feel more independent, playing further away from their homes and using the wider neighborhood as their outdoor

play space is a vital part of their developing independence and self-confidence’’(Children’s Play Information Service, 2003; Introduction).

Especially because of the accessibility problems, and the lack of sufficient play spaces, researchers have been trying to develop some criteria for future play spaces, on the other hand as Ward (1978) underlines, the provision for children’s needs operates on one plane, but the children operate another. Thus, before explaining children’s needs and preferences for the play space, their needs and rights in public space should be explained, since the play space is a public space and also any public space can be used as play space by children. For the safe and healthy growth of children, any public space should meet the needs and rights of both children and adults.

II.4.2 Needs and Rights in Public Space

The function of residential street differs from the traditional playgrounds but they both have some common features; both of them are public spaces and both serve as ‘play spaces’ for children. In this sense, it is essential to understand the role that those places play in people’s lives, and why they are used or ignored. Thus, it is important to clarify the needs and rights in public spaces.

II.4.2.1 Needs in Public Space

Carr et.al. (1992) defined five types of reasons seem to account for people’s needs in public spaces; comfort, relaxation, passive engagement, active engagement, and discovery.

“Any one encounter with a place may satisfy more than one purpose. It is important to examine needs, not only because they explain the use of places but also because use is important to success. Places that do not meet people’s needs or that serve no important functions for people will be underused and unsuccessful ” (Carr et. al., 1992; 91-92).

In order to make comparison between residential streets and traditional playgrounds in terms of their function as ‘play spaces’, above five types of reasons can be useful to understand why traditional playgrounds are usually underused and unsuccessful. While explaining these reasons, the focus will be especially on children’s needs in public spaces

which are used as play spaces. Also, parents' needs will be considered. To answer both needs in public spaces and also developmental needs of children can related with the continuity of play and play provision.

Comfort: It is the basic need in public spaces. As stated by Carr et.al. (1992), the results of studies conducted in Seattle, USA (Project for Public Spaces, 1978), and San Francisco, USA, indicated that relief from sun or access to sun is a major factor in the use of specific places. The best place should provide choices in sun and shade. Both the provision of shade from trees or shelters and access to sun is necessary especially for the places in which the children play.

According to Carr et.al. (1992), comfortable and sufficient seating also is an important aspect of nearly any successful open space. Physically comfortable seating includes the orientation of the seating, its proximity to areas of access, seating that is movable, seating for individuals and groups, seating that enables reading, eating, talking, resting and privacy, seats with backs, and for the adults with children, seating should be in the sight of play areas. In addition to physical comfort, seating should offer social and psychological comfort. "Social and psychological comfort is a deep and pervasive need that extends to people's experiences in public places. It is a sense of security, a feeling that one's person and possessions are not vulnerable" (Carr et.al., 1992; 97).

The need for comfort can be considered as influencing one's attachment to a space. To meet children's needs has not been a priority in public design, even in the playgrounds. Playgrounds are also places for parents to enjoy contact with other parents, so they should provide physical, social and psychological comfort with designed and natural elements. Both parents and children need physical, social and psychological comfort in playgrounds for the continuity of play, but in general, the lack of such kinds of comfort makes traditional playgrounds underused and unsuccessful.

In comparison to traditional playgrounds, residential street may be less safe but it can provide more comfort for children, especially social and psychological comfort. To be near to home and to be in contact with adults in the street make children to feel social and psychological comfort. "For many children, the primary outside play spaces is the streets and other open spaces near their homes. Most younger children tend to play around their homes where they are most likely to feel secure and comfortable" (Children's Play

Information Service, 2003; Introduction). For the continuity of play, the child should feel secure and comfortable in any play space.

Relaxation: According to Carr et.al. (1992), relaxation is distinguished from comfort by the level of release it describes. It is a more developed state with body and mind at ease. A sense of psychological comfort may be a prerequisite of relaxation – a lifting of physical strains, moving the person to a sense of repose. In examining the factors that support relaxation, they pointed out that the element of respite from or contrast to the adjacent urban context appears to be prominent. Separation from vehicular traffic, as in the case of pedestrian malls, often makes it easier to be relaxed, although it also may increase user concern about safety and security during low use times, setting off a space from adjacent streets and sidewalks can present safety problems as well as benefits.

The feeling of safety can be considered as a major factor for relaxation. So, not only the play space but also the surroundings of it should be safe and comfortable enough to meet human needs. Any playground can provide people with relaxation, but if the residential street that surrounds it is not safe, people can not feel relaxation.

According to Carr et.al. (1992), natural elements, especially water and natural features, such as trees and other greenery offer opportunities for retreat and relaxation. The opportunities to sit on grass, shade of trees, enjoy the greenery and flowers are appreciated by people. The provision of natural elements has been ignored in most of playgrounds, although they can be components of child's play. Moore and Wong (1997) state the importance of designed natural environments for wellbeing and the healthy growth of children.

To answer the needs for 'relaxation' in play spaces, a sense of psychological comfort and safety should be provided not only in the play space but also in the adjacent urban context. Also, natural elements are necessary to contribute to the healthy growth of children and to provide relaxation for all users.

Passive engagement: According to Carr et.al. (1992), passive engagement with the environment involves the need for an encounter with the setting. Also, it leads to a sense of relaxation.

In traditional playgrounds, parents and other adults usually do not involve in active engagement, they enjoy watching the activities of children. But if they are not provided with comfort and relaxation, passive engagement can not be constant. The situation is different for children, because passive engagement, to watch others, arouses interest to participate with the others who are playing. In this sense, to watch the action on the street may arouse interest for a child to be in there, to participate with the action. That is why, residential streets attract children.

Active engagement: According to Carr et.al (1992), it represents a more direct experience with a place and the people within it. Public spaces play crucial role as a setting for socializing with relatives, neighbors, acquaintances, and friends. As explained in section II.2.2, the function of play for socialization is important; therefore this type of reason seem to account for people's needs in public spaces can be regarded as the most effective one for children's preference for 'play spaces'. While playing, 'active engagement' with the surrounding and other children, even with the adults is necessary. In comparison to traditional playgrounds, residential streets can provide the school age children with more 'active engagement'. As pointed out by Jacobs (1961), streets and sidewalks are the public spaces which play the most important social function. "In fact, streets and sidewalks abound as public spaces supporting a range of child and adult activities" (Carr, et.al., 1992; 120). On the other hand, the function of residential streets as being 'informal play space' causes some parental and public concerns for the safety of children.

"It may be easy to romanticize the streets as natural playgrounds for children as they are growing up but the reality often is less ideal. In the inner city the street is filled with dangers-vehicular and drug traffic, broken glass, and filth. In affluent areas the streets rarely are used for play. Children are transported to special play facilities-parks, gymnasiums, and the like- or they remain within their homes. In both settings, the slum and high-priced residential area, parents' fears for their children's safety make the street as a context for play and development an ideal rather than a reality. But we can question whether this situation could be changed. The complex cultural and economic factors that underlie it can not be ignored, but there are design and management alternatives that can alleviate some of the difficulties" (Carr et.al., 1992; 120).

To make streets ideal for child play, there are some approaches which have been adopted in several countries. Examples of these approaches will be explained in section IV.3.1.

In terms of active engagement of the child in any play space, challenge and mastery are important qualities. According to Carr et.al. (1992), challenge and mastery are qualities that

stimulate interest and use and are human needs that explain much of the use of public spaces. On the other hand, designers usually do not acknowledge this need while designing play spaces. Children need to be able to test themselves, physically and intellectually, or they lose interest. “These opportunities are especially critical to children because they are the foundation of the development of their cognitive abilities and their sense of competence (White, 1959, cited in Carr et.al., 1992; 125).

To provide children with challenge and mastery, adventure should be provided for children. ‘Adventure playgrounds’ are being designed for this purpose to enable children to manipulate, to build and rebuild. Adventure can be provided through the design of play space, but there is a fact that children also like to play in informal play spaces in which they can make their own opportunities for challenge.

Discovery: According to Lynch (1960), discovery represents the desire for stimulation. Carr et.al. (1992) have stated that exploration is a human need. If children are deprived of stimulation, their intellectual and social development can stunt.

In comparison to the traditional playgrounds, the natural elements in informal play spaces can be regarded as more stimulating by children; 6 to 11 years old children do not like planned play and immobile and modest type of playing equipments in traditional playgrounds. “The possibilities to choose their own activities and create their own play space in the environment are important elements in children’s play” (Moore, G.T., 1985, cited in Fjørtoft and Sageie, 2000; 84).

As child gets older, the need for discovery and challenge in the outdoor environment increases. Such as primary school children do not like the repetition of same activities, they need to explore and discover while playing. In order to provide children with discovery of the outdoor environment, ‘discovery gardens’ are designed.

“The discovery garden is a naturalistic play and learning environment for children that offers age appropriate challenges to children from infancy to adulthood. It is based on the premise that environments that are dynamic, challenging and stimulating facilitate child development. A discovery garden relies on natural components (such as topography and plants) to provide play experiences, and enhances these natural components with built elements and manipulatives loose parts” (Crowder, 2003; “Discovery Gardens”).

On the other hand, it is not possible to design such gardens in the micro scale in each neighborhood, because of the design and management costs.

II.4.2.2 Rights in Public Space

According to Carr et.al. (1992), public space implies the freedom to use a place, but there are some constraints that prohibit or discourage members of the public from exercising their rights.

Children are members of public life who are exposed to more constraints and prohibition. As social beings, they have some spatial rights in public spaces. In this study, the focus will be on their right to play freely in a safe and healthy environment. Like all adults, children have spatial rights not only in the formal play spaces but also in the informal ones, such as the residential street, which can be considered as the most attractive public space for children.

As outlined in the first chapter, children have some rights, which are declared all over the world by international organizations. If the major concern becomes child right's to play and to have play spaces, freedom of use, safety, and health conditions in any urban space should be outlined. In examining a variety of play spaces, whether formal or informal, it becomes apparent that different degrees of freedom and control exist in different situations. The precise balance between those two factors is depended on a number of factors, including needs and preferences of children and control and limitations of other groups.

As social beings, people have to live with others, with norms, rules, regulations, and supervisors. So, there are always some potential constraints on an individual's freedom, especially on the children. In the discussion of freedom of use and control, Lynch's (1987) delineation of dimensions of spatial rights, which he considered as essential in the city, can be adapted to explain children's spatial rights. Lynch (1987; 118) defined five basic dimensions of performance; vitality, sense, fit, access and control.

Vitality: "It is the degree to which the form of the settlement supports the vital functions, the biological requirements and capabilities of human beings..." (Lynch, 1987). According to Lynch (1987), 'safety' and 'consonance' are principal features of the environment, which make it a vital place, an adequate life ground.

Lynch (1987) claims that individuals seek out risks, to test themselves and enjoy danger. According to him, the growing child should be able to extend its range gradually, confronting more and more of the world, exercising its powers with greater and greater responsibility, and yet always be able to retreat to a protected nest. In this sense, the two components of 'vitality', which are 'safety' and 'consonance' should be provided in any urban environment which has variety of play spaces whether formal or informal.

Both for designers and parents, safety in the play spaces is the major concern. While playing, children like to challenge and to take risks. "A hazard is something a child does not see; a challenge is a risk the child can see and chooses to undertake or not. Children need to take risks to challenge their skills and courage. A risk free play area is neither possible nor desirable" (Moore et.al., 1987; 10). Especially the outdoor play spaces have some possible dangers and risks; such as cars in the streets, unsuitable play equipment and design elements in the playgrounds. That is why, parents do not prefer outdoor play spaces for their children and they want to supervise their children's play activities. On the other hand, nobody can prevent the children from playing outdoor and from taking risks; therefore 'safety' should be the first spatial right, which must be provided for the healthy development of children.

In the discussion of child's right in public space, especially in the play space, the other component of 'vitality', which is 'consonance', should be outlined. Lynch (1987) stated that the spatial environment should provide an optimum sensory input: neither overloading a person nor depriving him/her of adequate stimulus and this may be especially important to the normal development of the child. Physical elements in the environment should all be fitted to human size and powers. In the case of play spaces, the setting should encourage the active use of the child's body and the physical elements, such as site furniture and play equipment should be suitable to the ergonomics of different age groups.

Sense: It is the second type of spatial right. Lynch (1987) stated that the simplest form of sense is 'identity' and he defines it as the extent to which a person can recognize or recall a place as being distinct from other places.

Children make a sense of place depending on their experience and perceptions in that place. In order to perceive and establish 'identity' of a place, children need stimulating and challenging information with a range of choices and experiences. "A rich, sensuous world, full of diverse meanings and characterized by an unfolding order, is a fine growing medium,

if the child is free to explore it and can at times withdraw from it into some quiet and protected place” (Hart, R., 1979, cited in Lynch 1987; 144). To make a sense of place is necessary to the growing child, who is more open to the immediate sights and stimulations, so the child should be provided with opportunities to put the stimuli with variety of experiences in different places. As stated by Lynch (1987), the perceptual requirements of special groups have yet to be routinely considered, such as children. In this sense, children should make a sense of ‘play space’, which is distinct from any other public space, so ‘play spaces’ should stimulate the child physically, perceptually, emotionally, socially and intellectually.

Fit: “The fit of a settlement refers to how well its spatial and temporal pattern matches the customary behavior of its inhabitants. It is the match between action and form in its behavior settings and behavior circuits” (Lynch, 1987; 151).

Depending on the expectations and needs of the users, places are modified to fit ways of behaving, or behavior is changed to fit a given place depending on the components and constraints in that place. In this sense, ‘change’ is an important dimension of successful public spaces. “The ability of a place to evolve and change over time is an important quality of good environments” (Lynch, 1972b, cited in Carr et.al., 1992; 169).

Change has a complex meaning, because it can occur in many ways. People may want to alter and to manipulate the public environments to fulfill their needs and purposes. Because of their developmental needs, children can be considered as the user groups who like to alter and manipulate their environments. Manipulability of the environment is the essential property for play behavior that is changing and unpredictable. On the other hand, children have been restricted to perform their play activities, due to the mismatch in most of formal play spaces and lack of safety in informal ones.

Children are provided with ‘traditional playgrounds’ in residential areas, but their sufficiency in terms of meeting the needs of children is questionable. That is why, children prefer to play in informal play spaces and try to modify them depending on their needs and preferences, but in this case safety becomes the major concern. Researches reveal that the physical pattern and elements of traditional playgrounds do not match the needs of older children, due to their need for freedom of action and manipulate the physical environment. “An adventure playground can be given as an example of public space where extensive manipulation by

users is permitted and often encouraged” (Carr et.al., 1992; 171). Whether in formal or in informal play spaces, the child may want to modify the space to fit his/her needs. “Neighborhood play areas probably require the greatest setting adaptability of any designed environment anywhere. And manipulability of the environment appears to be the essential property for play behavior that is fluid, changing and unpredictable” (Spivack, M., 1969; 292, cited in Carr et.al., 1992; 171). In this sense, the major issue should be the safe and easy ‘access’ to formal or informal play spaces in neighborhoods.

Access: Lynch (1987) classified the types of access according to the features to which access is given and to whom it is afforded. Most basic is access to other people; next is access to certain human activities, access to certain materials, access to places and access to information. In this study, the focus is on the children’s ‘access’ to play spaces and to other facilities in the outdoor environment

Access is basic to the use of public, especially for the safety and encouragement of children in the outdoor environment. According to Hart (1978), the environmental competence of children is directly related to their abilities to gain safe access to built and natural environments.

According to Carr et.al. (1992), a simple way of conceptualizing access is in terms of its three major components; Physical access, visual access, symbolic access.

1. Physical access: the space should be physically available to the public. Limits to physical access can be in different forms such as, gates, signs, gatekeepers, etc., automobiles can be considered as the limits to physical access in residential streets. “Young children are especially dependent on the quality of the environment near their home to meet their needs for movement and exploration as well as to experience and learn from the outdoors” (see, e.g., Cohen and Horm-Wingerd, 1993; Heft and Wohlwill, 1987; Lidz, 1968; Einstein and Bearison, 1985, cited in Abu-Ghazze, 1998; “On Children and the Use of the Street as a Playground”). The dominance of the automobile and their speed in the residential streets are the major factors that limit children’s physical access and free play in their neighborhoods. “Recently, communities throughout the world have made attempts to limit the dominance of the automobile in residential areas” (Appleyard, 1981). Dutch ‘woonerf’, where streets are designed to control traffic and enable play and pedestrian access can be given as an example of successful physical access.

2. Visual access or visibility is also important for children in order to feel free to enter a space.

3. Symbolic access is another type of access, which is about the presence of cues, in the form of people or design elements. All types of access are tried to be applied in Dutch ‘woonerf’ design, which is explained in section IV.3.1.

Control: Lynch (1987) states that space and the behavior associated with it must be regulated. Human being uses the space to manage personal interchange and asserts rights over territory to conserve resources and they exercise these controls over pieces of ground. Spatial controls have strong psychological consequences: feeling of anxiety, satisfaction, pride, or submission. The dominance and control of some groups on minorities or on groups with special needs may cause the feeling of exclusion.

As outlined before, children are the members of public life who are exposed to more constraints and prohibition, due to the controls of adults. As social beings, they have some spatial rights in public spaces, like all adults. In this sense, ‘freedom of use’ and ‘control’ can be considered as basic to child’s rights in public spaces.

While explaining freedom of use and control, “the first spatial right is the right of presence, the right to be in place, to which may be added the further right of excluding others” (Lynch, 1987; 205). In normal circumstances, children have the right to share all public spaces with adults, on the other hand they are restricted because of lack of safe access and parental concerns, but nobody have the right to keep the children off of the public space. This is the case for residential areas, children have the right to share the residential streets with adults, but the dominance of cars restricts them to carry out their activities, whether for daily trip to schools, to ‘play spaces’ or while playing.

As Lynch (1960, cited in Sherrod and Cohen, 1978) stated, codable elements in urban space such as well defined neighborhoods, clear pathways, allow individuals to form clearer cognitive maps of space, facilitate information processing, increase predictability, and enhance perceptions of control. Moreover, when the urban space is planned to encourage the use of open spaces and streets and becomes more controlled, the needs for safety and belonging are satisfied.

“The second right is that of use and action, of behaving freely in a place or of using its facilities without appropriating them” (Lynch, 1987; 205). People desire to carry out some activities in the public spaces, but with a limited freedom of action. Since the public space is a shared space, the rights of others should be considered.

In the case of children’s freedom of action in any ‘play space’, the existence or lack of rules and regulations is important to the achievement of this type of spatial right, since children may desire or wish to play anywhere. On the other hand, children’s spatial rights in public spaces, even in the playgrounds have not been considered. They have had limits on their use of ‘play spaces’ whether formal or informal.

The third right is appropriation. People may claim to take the resources of a place for themselves or use its facilities in some way that prevents the rights of others. “Claim to a space goes beyond access and freedom of action in stating a proprietary interest over space” (Carr et.al., 1992; 158). Claim to space is one of the spatial rights of users to fulfill their needs, but claim of one group may restrict the freedom of others. Also, the dominance of any type of function can prevent the others’ freedom, such as the car dominance in the residential streets, which restricts the mobility and accessibility of children.

Children may claim any space as their ‘play space’, on the other hand they are usually restricted to fulfill their needs. Even in playgrounds, which are the unique places in which children’s claim to use the space for their play activities is dominant, but their claim may also be restricted by adults or by different age groups of children. The restriction for children’s activities in residential streets continues to be the case.

According to Lynch (1987), the fourth right is the right of modification. As explained above, people may change and modify the environment depending on their needs and expectations. The modification can be permanent or temporary. The degree of modification and change affect the rights and activities of others and may prevent them from carrying out some activities.

According to Lynch (1987), the fifth right is the right of disposition. “All truly public space is, in fact, owned by the public even though the control implied may not be exercised. Disposition of a site may be the ultimate right of possession” (Carr et.al., 1992; 177). In many cases, the right of ownership and disposition represents a form of control. On the other

hand, this is controversial in cases where the public space is used by children. Because children may want to use any public space out of its design purposes and make changes in it to feed their needs. The strong link between change and ownership gives the users the right to make changes when the site no longer meets their needs. Even in playgrounds, children make changes on the playing equipment and use them out of their design purpose. According to Krohe (1996), to make playgrounds interesting, kids often deliberately use them in contrived or extreme ways.

It is clear that the term public space implies the freedom to use a place. In terms of children's activities, public space implies the freedom of play, but there are numerous constraints that restrict or discourage children from exercising their rights, even for playing. In order to give children freedom of play in the outdoor environment, their rights in public spaces should be the major concern. If children's rights in public spaces are considered, they have opportunities to develop their physical, perceptual, emotional, social and intellectual needs. Also, while playing, the child has some special needs to develop his/her creativity. In this sense, 'play space', whether formal or informal, should be analyzed depending on its contribution to play activity and child's developmental needs. Thus, child's needs and preferences in the play space should be explained depending on other factors, which are the components of variety; diversity, complexity and surprise.

II.4.3 'Variety' in Children's Play Spaces

In this study, variety is regarded as one of the components of successful and contributory play spaces in the child's immediate outdoor environment. Elements of variety stimulate the children physically, perceptually, emotionally, socially, and intellectually. Also, "variety emerges as one of the most important property in the urban fabric which helps us to understand the quality of urban space and user satisfaction" (Ünlü, 1996).

Variety in micro space, as Porteous (1977) defined as the space beyond the individuals home, where the personal and formal behavior and activities occur. Variety at this scale helps us to understand the role of physical surroundings on children's play activities and preference for play spaces, since the components of variety is strongly related with the child preference and creativity in the outdoor environment.

While analysing the variety in micro scale, the components of it help us to understand the quality of urban environment (neighborhood) for the satisfaction of children. “Several of the dimensions related to the variety in providing preference and attention of the individual is diversity, complexity, and surprise” (Ünlü, 1996; 100).

“In any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kind of variables in it” (Nicholson, 1971, cited in Heseltine and Holborn, 1987; 18). Thus, for the development of child creativity, play spaces should have some variables to invite the children.

Moore and Wong (1997) have stated that diversity is also synonymous with an enriched environment, which again stimulates and promotes play and learning. The elements of successful and contributory play spaces should allow children for their creative development. Diversity of natural elements, such as open fields for running, trees for climbing, bushes for hiding and level differences of topography stimulate children physically. On the other hand, the lack of open spaces and natural features in traditional playgrounds restricts children’s physical development. In comparison to traditional playgrounds, formal play spaces, such as the residential street, side walks or yards can provide children with diversity of play spaces for running, hiding and carrying out other creative plays. Another reason for children to prefer informal play spaces is that they like unstructured and manipulative environments.

Also, the lack of suitable play equipment in traditional playgrounds restricts children’s physical and creative developments. Depending on the ‘creative development’ of children, materials with alternative uses should be carefully provided within play space; those materials can be designed or natural.

“Creative development can be stimulated by the alternative uses of materials—for example, natural materials such as sand and water. Through the interaction between loose materials and children, especially pre-schoolers, creative development on play space can occur” (Heseltine and Holborn, 1987; 18). Since most of today’s traditional playgrounds have been designing for pre-schoolers’s needs and creative developments, the school age children are neglected. That is why, they want to explore some ways to develop their creativity and prefer to create their own play spaces. Due to the importance of play for social development of children, any play space should answer the needs of different age groups.

Also, “People’s preferences are generally related to intermediate amounts of complexity” (Craik, 1970, cited in Porteous, 1977; 109). So, complexity, which is defined as the amount of variation in the scene, (Nasar, 1992, cited in Ünlü, 1996; 103), can be regarded as another factor that has influence on the children’s preference for play spaces in their immediate environments. On the other hand, as explained in the first chapter, modernist planning affected play facilities of children and changed their play habits in the outdoor environment. As outlined by Ünlü (1996), early twentieth century architectural views have ignored such complexity, the modern design theory favors simplicity and clarity. The influences of such an approach is obvious in the design of traditional playgrounds with a number of indistinguishable play equipments in a piece of land and too little complexity leads to monotonous environments. That is why children evaluate the traditional playgrounds as monotonous and boring.

As stated in section II.4.2.2, ‘claim’ and ‘modification’ are spatial rights in public spaces. “The physical manifestation of complexity occurs as a function of both the initial level of complexity built into the neighborhood by the original designer, and the complexity gained organically over time as residents modify their surroundings in response to new needs and circumstances” (Moudon and Ryan, 1974; 185). As stated in section II.3, neighborhood is the immediate outdoor environment in the microsystem and in which the residents may claim their rights and modify the environment depending on their needs. On the other hand, the amount of variation in the residential streets, in terms of physical elements and other users, influence the preference of children about play activities. Also, the problems of safety restricts them to carry out desired activities.

The experience of surprise is another factor that influence on the children’s preference for play spaces. “The degree of surprise felt by the observer is a function of the rhythm of variety and the range of change, as well as of the relative familiarity with the place” (Ünlü, 1996; 106). If the observer is the child, the degree of change in the environmental information, which stimulates them physically, perceptually, emotionally, socially, and intellectually, is important for the child’s experience of surprise. The lack of environmental information or the familiarity with the space can cause the lack of surprise and the need for discovery. While playing, children’s need for change or manipulate the environment can be related with the lack of surprise.

It is clear that diversity, complexity and surprise can be regarded as the components of successful play spaces, and the reason for children's preference for any play space rather than the traditional playground, on the other hand, the concern for children's safety in outdoor environment deprive children from assimilating them as environmental knowledge.

II.4.4 Needs and Preference for the 'Play Space'

Both adults and children have some needs and spatial rights in public spaces. If the major concern becomes play activity, children's needs and also preferences should be understood in relation to their developmental needs. In order to meet the needs of children, play space should be accessible and safe. If they are easily accessible to children and there are no safety concerns, children can feel comfort. In order to engage both actively and passively in the outdoor environment, children need variety of settings in which they can carry out different play activities. In this sense, discovery can be considered as the most important factor for children's stimulation.

Also, the child's preference for the play space depends on the variables in that space. As mentioned, while explaining child developmental needs, five kinds of stimulation are stated as necessary for child development while playing. May be children are not aware of their developmental needs, on the other hand they unconsciously want to feed their needs and look for some features in their play spaces. That is why any designed space by adult designer can not be interesting or stimulating for them. They prefer to play on other play spaces whether designed for them or not, whether incidental or not.

For physical stimulation, the provision of non portable play equipments is not enough to stimulate the child physically, especially the school age children need more than physical stimulation in order to carry out activities. Diversity and complexity of physical elements both in terms of play equipment, design elements and natural features in the outdoor environment are needed for the physical stimulation of young adolescents. Also, there should be opportunities to explore, to challenge, to discover and to manipulate the physical environment.

Children's need for perceptual stimulation is connected with the need for sensory and motor stimulation, so not only the playgrounds, but also all public spaces should be designed as

suitable for their **perceptual stimulation**. Eriksen (1985) stated that perceptual development also comes from emotional, social, and intellectual experiences, for we develop perceptions about all aspects of life. Thus, experiences that stimulate perceptual growth are needed in any environment for children.

Emotional Stimulation as explained above, can be considered as being restricted in traditional playgrounds, both because of the interference of adults and also of the design types of fixed equipment in playgrounds.

For social development, children need to relate and interact with others; not only with the other children but also with the adults. Anderson (1986) states that children, who are in the course of developing their competence for dealing with the world, must come to terms with both their immediate environment and their extended surroundings. In the process of learning about the environment, children may not only be developing cognitively; they are also in a position where the physical environment provides a platform for social learning experiences. Thus, due to the fact that play is the child's way of socialization, children should not be segregated from the physical environment.

For their social development, children need to interact not only with other children from different ages but also the adults. So, it is obvious that, a successful play space should provide the opportunity of meeting with different age groups and developing social interaction with the residents. According to Eriksen (1985), recent research has strongly suggest that an important factor in social growth is mixing children of different ages, not segregating younger children from older children as in the past.

Any formal play space can meet all requirements for needs and rights in public space, on the other hand they can still remain as unused. The lack of variety in formal play spaces can lead the children to establish some opportunities for play spaces. Thus, researchers have been trying to identify 'quality of play' and 'quality of play provision'.

II.5 Quality of Play and Quality of Play Provision

As explained in section II.2.1, there are the five particular themes, which are developed from the theoretical base for interpreting play, in this sense, traditional playgrounds lack

providing children with environmental, physiological, creative, educational and social development. The quality of children's play spaces should more than a piece of non-portable play equipment.

Children, especially the school age children, need more than play equipment in order to have satisfying play. So, while evaluating the quality of play and quality of play provision, not only the physical layout and components of play space, but also the relation of play space to its surrounding should be considered. While playing, the child aged 6 to 11 need to experience variety of settings with diversity of elements. Since they have the right to play and they may play wherever they want, some researchers have been trying to identify 'quality for play' and 'quality for play provision'.

Heseltine and Holborn (1987;18) stated some criteria for identifying the quality in play;

“time-the more time a non-repetitive play activity lasts and holds the child's attention, the greater the play value,

change-the greater the ability of the playground and the equipment to be changed (providing it has developmental value), the more possibilities are offered to the child and, therefore, the greater the play value,

relevance-the closer the playground or equipment can be adapted to meet the child's individual needs, the greater the play value,

challenges-the more opportunities the playground has to offer an increasing level of challenges to children, the greater the play value,

suitability-the more the playground can match different ages and needs at the right time, the greater the play value,

co-operation- the more the playground can stimulate co-operation and group play, the greater the play value”.

According to above criterias, the typical traditional playgrounds reveal that the quality of play currently available is extremely limited and little play value can be gained from them.

Also, if we consider that child may play anywhere, we should be sensitive about not only the quality of play in the playgrounds, but also the quality in the total environment. The primary school children, who can interact with their environment without adult interference, need to manipulate and control the outdoor environment, especially in the process of playing. Thus;

“The environment should not be thought of solely in the physical terms of space and buildings, but also in terms of play things, play people and cultural traditions. The interaction of the child with the total environment and vice versa, combined with the ability of the child to manipulate this environment, is crucial to the quality of play, yet frequently the only way in which a child can alter the adult provided built environment is to simply walk through it” (Heseltine and Holborn , 1987; 20).

In addition to identifying the ‘quality’ of play provision, the qualities in play provision should be considered, since the children need to possess some qualities while playing in the playgrounds. Polly Hill (1983, cited in Heseltine and Holborn,1987; 38) defined some of them as;

“physical fitness-by providing equipment which develops muscular growth and co-ordination,

intelligence-using equipment and materials which can be adapted and developed,

creativity and imagination-by providing a variety of equipment, textures and loose materials,

emotional stability and initiative-through the involvement of adults,

social assurance and co-operation- by providing suitable materials, spaces and equipment,

self- confidence and competence- by providing choices and challenges in equipment,

individuality-through the provision of non-directive leadership,

sense of responsibility-through the involvement in the design and management of play areas”.

These are necessary qualities for children’s learning and development (social, emotional, cognitive and physical) through play. Since the traditional playgrounds can not provide children with most of these qualities, children try to explore their own ways to feed their needs.

Types of playgrounds, such as the adventure playgrounds can provide most of the qualities for play and for play provision, but children do not want to be restricted within a defined play space. According to designer, any play space can be appropriate for children, but the children may prefer to play in another setting which has no quality for play. In this case, designer should be sensitive about the child’s preference.

“One factor that ameliorates the problem of designing appropriate environments for children’s play is that children can play almost anywhere with almost any object. Of particular concern in designing for children is the nature of transitional space in areas of the city where people live. These spaces include “access yards, courtyards and streets adjoining the home” (Chawla, 1991, cited in Lang, 1994; 309).

In this case, the major concern should not be to provide children with designed play spaces with standard qualities for play and play provision. It is the fact that if children do not need adult supervision, they can play almost anywhere. Thus, the major concern should be given to the safety problems in the ‘spaces’ which are preferred by children as ‘play spaces’, such as access yards, court yards, streets, etc. According to Appleyard (1981), in dense residential areas the nature of the sidewalks and streets is a major consideration. So, because of children’s rights for safety, the priority should be given to residential streets, which is the most attractive informal play space for children. In order to clarify the function of residential streets as informal play spaces, first of all the function of traditional playground, which is formal play space, will be explained.

CHAPTER III

TRADITIONAL PLAYGROUNDS

III.1 Development of Playgrounds

As explained in the introduction part, increasing industrialization and technological improvement in the eighteenth and nineteenth centuries led to the specialization of land uses. And with the introduction of Modern Planning principles, play facilities in formal play spaces were provided for children and the playground was introduced in the late nineteenth century. In modern cities, segregation of land uses restricted the accessibility and free movement of children in the urban environment and changed their play habits.

“The playground concept was introduced in the United States in the late 19th century. From that time until now, its basic form has remained essentially constant” (Crowder, 2003; “Playgrounds”). Eriksen (1985) clarified the features of the early playgrounds as:

“These early playgrounds had several common characteristics. They were for the use of young children; they were located in the densely populated sections of cities; they received funding from philanthropic sources; they were maintained only during the summer vacation period; and they contained equipment that was suitable only for outdoor use”. (Eriksen, 1985; 10).

As stated by Arnold (2003), in the United States, The National Recreation Association in the 1900’s developed guidelines for certain equipments for playgrounds like providing a sand box, swings, a small slide and a climber; this is known as the traditional playground and unfortunately not much has changed since then.

In many countries, development of first playgrounds was depended on the idea of physical exercise, for this reason some guidelines were developed and non portable play equipment became the basic element in traditional playgrounds. “Children however, need more than the traditional playground. They need playgrounds that challenge their skills and provide opportunities to learn new ones” (Arnold, 2003; Introduction).

In Europe, development of first playgrounds was revealed at about the same time as in the United States. “The characteristics of the equipment showed similarity with its hard gravel surfaces and standardized playground structures such as swings and seesaws. Rather than considering play as a serious activity, amusement was the main purpose in the design of the play equipment” (Metin, 2003; 23-24). Development of traditional playgrounds was followed by the introduction of contemporary and adventure playgrounds (construction or junk playground).

Like traditional type of playgrounds, contemporary playgrounds are designed to provide the child with opportunities for physical activities, but as outlined by Metin (2003), play structures without moving parts do not support children’s learning and developmental needs. Although they are aesthetically pleasing, they do not let the child recreate their environment.

In order to let the child develop their creative skills, another approach to the development of playgrounds was the design of adventure playgrounds. “The construction or junk playground, which began in Denmark in 1943, is envisaged as an area of land which children are free to develop in their own way” (Heseltine & Holborn, 1987; 41). From Eriksen’s (1985) point of view, adventure playgrounds represent a real change from traditional playground concept in the last sixty years.

Whether traditional, contemporary or adventure type, the general approach was to provide the child with a physically segregated play environment and the only major concern was about the physical development. Thus, the introduction of such formally designed play spaces did not contribute much to the needs of children, but brought the problems of accessibility to such segregated spaces without adult supervision. And the integration of alienated child in the changing urban world became the major concern. It continues to be the case for today’s children, whose mobility and accessibility in the outdoor environment are restricted.

The first reaction to the alienation of the child in the city came from Netherlands in 1950s, the country where today's designers still make beneficial contributions for the child's outdoor play spaces. The most well known is the architect Aldo van Eyck, whose criticism can be useful in order to understand changing approaches in time. The main issue is not to understand the physical elements and design principles in Eyck's playgrounds, but to explain some famous playgrounds will help us to make comparison with today's superficial thinking on traditional playgrounds. In order to understand how the changing urban pattern affects the provision of play spaces, and how the continuity of play is restricted in today's urban environment, some approaches developed in Netherlands since 1950s may help us.

“In Amsterdam, the roughly 730 playgrounds designed between 1947 and 1978, illustrate Aldo Van Eyck's vision on the use of the city, in which unsightly oddments of urban space were transformed into usable and architecturally interesting playgrounds” (Indepth Arts News, 2003). Aldo Van Eyck focused his attention on the relationship between urban place and urban structure.

“Eyck concerned with the spiritual vacuity of modern architecture and believed that such industrial designs caused alienation and psychological distress” (Indepth Arts News, 2003) Also, such industrial designs, and approaches to design formally segregated play spaces have influenced the continuity of play in the urban environment, thus the children became the most alienated and disintegrated group in the urban environment. In his article, ‘The Child and The City’, Eyck stated;

“What the child needs is something more permanent-if less abundant- than snow; something quite unlike snow, incidentally, but which the city can also absorb without losing what remains of its identity, something intended for the child and discovered by him as his own, though it is not entirely different from the incidental places, things and materials that serve totally different purposes; something which the child adapts in its own way to its imaginative life, something elementary, which is placed where there is still room for it, to attract the child from darkness and danger into light and greater safety” (1959; 35).

As stated by Strauven (1998), Eyck started to design playgrounds in Amsterdam when the city already had a considerable tradition in the area of children's playground and boasted several ‘play gardens’, which were the outcomes of The Amsterdam Playground Movement originated in the late 1870s. On the other hand, these were fenced plots supervised by keepers and reserved for the children of the association members. Moreover, these were scattered arbitrarily and irregularly around the town. As indicated by Strauven (1998), the

Town Planning Department therefore decided to add to the stock of ‘closed’ playgrounds by installing at least one ‘open’ playground in every neighborhood to be entrusted to the supervision of the general public. The first experiment in 1947, was on Bertelmanplain Playground.

Bertelmanplain playground was designed by Aldo van Eyck and he placed a large, broad-edged sandpit eccentrically in the northern corner of the square in order to leave a large area for mobile play which was articulated by a group of somersault frames. The sandpit was furnished with four round stones and arch-shaped climbing frame.



Figure 3.1 Bertelmanplain Playground, Amsterdam (1947)
Source: <http://www.archined.nl/archined/2991.html>

Strauven (1998) states that this modest composition of elementary forms met with such favor from the local residents and the city council that the latter soon reserved a million guilders for the construction of several more such playgrounds. And another projects expanded to every neighborhood of the old city and every new housing estate.

Eyck’s opinion was rediscover and reevaluate opposites; such as unity-diversity, part-whole, small-large, many-few, open-closed, inside-outside, movement-rest. So, the physical layout of playgrounds designed by architect Aldo van Eyck reveals complex unity of different

places, a form of unity in diversity. “ It is Eyck’s opinion that the new harmony can not be achieved by adding together neutral, equalized elements, but rather by an interaction between markedly different, even contrary components” (Strauven, 1996; 10).

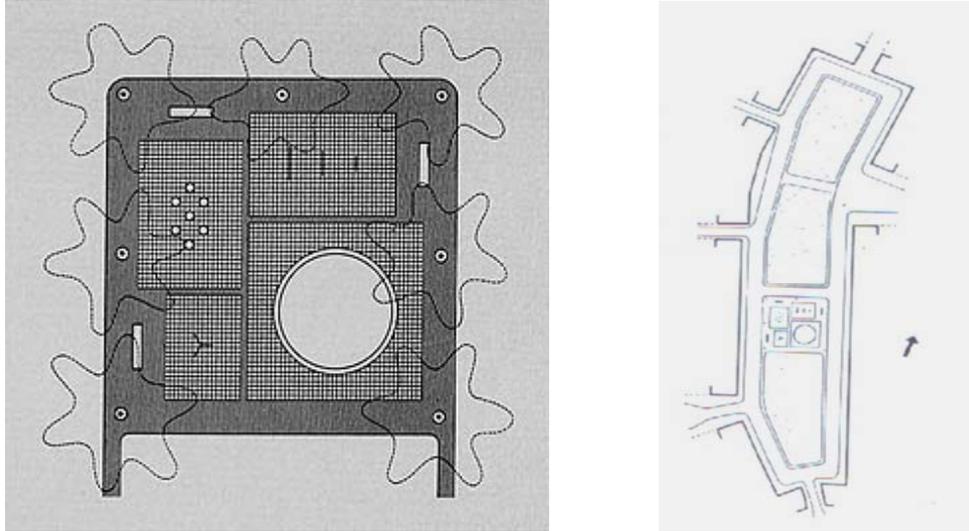


Figure 3.2 Plan and Situation of Zaanhof Playground, Amsterdam (1948)
Source: Strauven F., 1998, p: 15



Figure 3.3 Zaanhof playground, Amsterdam (1948)
Source: Strauven, F., 1998, p: 155

About Zaanhof Playground, Strauven (1998) states that on this 20 meters square site, part of the inner courtyard of a perimeter block, Eyck achieved four different play situations—a round sand pit, three somersault frames, seven jumping stones and a roundabout-area related in a pattern of asymmetrically arranged zones. These zones are clearly marked by four rectangular areas of white concrete tiles which stand in clear contrast to the brown clinkers

of the playground square. The playground is bounded by eight trees which mark the corners and the centre of each side of square. Although the trees define the regular axes of the square, not a single line of the layout appears to correspond with these axes, as a result of which the shifted and eccentric location of the various elements appear all the more conspicuous.

In Eyck's playgrounds, children are provided with diversity in the physical layout of play spaces to allow various play settings. Also, diversity of both physical and natural elements allowed children to develop their creativity. Although today's traditional playgrounds lack of having diversity in physical layout, it is possible to provide children with unity of different play spaces within playgrounds.



Figure 3.4 Play-space on a traffic island, Jacob Thijssplein Playground, Amsterdam, (1950)
Source: Strauven F., 1998, p: 156

“Jacob Thijssplein is an urban space shaped roughly like an isosceles triangle with a base of 140 m, divided in two by a road (Heimansweg). The starting point for the programme was the decision that had already been taken to plant the northern half as a public garden and to make the southern half into a fully paved area. The brief was to furnish the large paved area, alone measuring over 2000 square meters, with a limited number of relatively small elements” (Strauven, 1998; 156).

Eyck focused on the integrity of play spaces in the city, and did not consider them only as separated and fenced areas for child's play, like most of today's traditional playgrounds. So, his reaction to the alienation of the child in the modern city made success in 1950s. However, Strauven (1998) states that Zeedijk Playground was demolished after years of neglect. A number of other playgrounds suffered the same fate; the Zaanhof Playground in 1977, the Dijkstraat in 1972, and the Mariniersplein in 1968. “Today many of Van Eyck's

playgrounds have disappeared beneath development, though the commitment to public play provision in the Netherlands is still strong” (Worpole, 2002). As explained above, Eyck did not consider the playground as physically isolated area from the outdoor environment, and provide the continuity of play spaces in the city, but within time they were neglected and demolished.

It seems that opportunities to provide the child with play spaces may change in time. A successful solution in a period may be to loose its effect within time, especially because of rapidly changing urban pattern. In conclusion, it is clear that Eyck’s approach was influential answer in 1950s, on the other hand, today’s designer have been trying to find new solutions for the alienation of the child in the rapidly changing urban world, the most well known approach is again from the Netherlands as will be explained in section IV.3.1.

As Metin (2003) states that changing way of life styles change children’s expectations from a piece of equipment on a playground. Although, traditional type playgrounds are common in public places, children’s choice of playground type is exactly different from adult intended. In order to understand the changing approaches within time, the conditions of today’s traditional playgrounds will be explained below.

III.2 Traditional Playgrounds

As explained in section II.4.1, play spaces, which are designed to provide children with play facilities are called as ‘formal play space’. In this study, the major aim is to focus on the playgrounds, especially the traditional playground, which is the most common type of play space in the neighborhood scale.

With the introduction of ‘traditional playgrounds’, children were restricted to play in these identified spaces. On the other hand, there is a fact that children can play anywhere and anytime, even they may not prefer to play in specially designed places for them. The preference for the types of play space depends on the opportunities for child’s creativity. The results of the research, conducted by Alvin K. Lukashok in 1955, revealed that children seem to prefer to play anywhere but the playground (1955, cited in Banerjee et.al., 1995; 159).

“The sad condition of many of our traditional playgrounds and the fact that such playgrounds often stand empty and neglected by the children have led some critics to speak out against all playgrounds. They argue that children can and will play at any time, in any setting, even in the most littered vacant lot in a city. Therefore, playgrounds as spaces specifically set aside for children are unnecessary, even undesirable, as they limit children's creativity. After all, children played whenever and wherever they could centuries before the first playground was created without the benefit of fancy play equipment” (Eriksen, 1985; ix).

There are some critics, who speak out against traditional playgrounds, and that is why designers have been trying to design other types of play spaces; contemporary playgrounds and adventure playgrounds are the most common types to answer the needs of children. Contemporary and adventure playgrounds can be regarded as alternatives to the traditional playgrounds, which lack providing children with creative development and challenge.

As explained in the previous chapters, introduction of formal play spaces has not changed the child's view to establish informal play spaces. It does not mean that playgrounds are unnecessary. Rather than stifling their creativity, a properly designed play environments stimulate children's learning and development, and contributes to social interaction. On the other hand, there is a fact that, children, who do not need adult supervision in the residential area, do not prefer to play in traditional playgrounds.

Researchers have been trying to understand what can be the reason for the child preference on any other setting for play rather than the traditional playgrounds. In this study, the results of researches and interviews with children (primary school age) reveal that they do not prefer to play in ‘traditional playgrounds’ or any other segregated play spaces.

On the other hand, there is another fact that traditional playgrounds have being used by some groups; they have even been serving as a part of landscape in neighborhoods. As outlined in the first chapter of this study, the focus will be on the needs of ‘primary school age children’ and their preferences for the ‘play space’. So, it will be useful to differentiate their needs from the young ones who are the most common user group in ‘traditional playgrounds’.

III.3 Playground Users, Their Needs and Problems

The main users of play facilities are defined by Dattner (1969), as children, parents, other adults and city administration. So, the playground users can be divided into three main groups; children, parents, and other adults.

The first group consists of different ages of children in terms of their needs and preferences while playing. According to Gür (1999), age groups of children are; 3-5, 6-11, and 12-15/18. While playing, the needs and preferences of these groups differ from each other; the first group of children needs parental supervision, on the other hand the other two groups do not need the parental support or any supervision.

Papalia et.al. (1998) define the 3-6 years as early childhood, 6 to12 as middle childhood and 12 to about 20 years as adolescence. In this study, the child who is in the middle childhood period will be focused, due to their increasing need for the participation in the outdoor environment by themselves; whether for playing, going to school or for other social activities. In order to prevent possible complexities, throughout the study this group will be stated as 'school age child' or 'older child', and the others will be stated as 'younger' and 'adolescent.'

The other user groups, who are parents and other adults, differentiate from the children in terms of their needs and preferences about 'playground'. Parents evaluate the playground as a 'play space' and their concern is their children's safety, but other adults may evaluate it in a different way and consider playground as 'public amenity' for all.

III.3.1 Needs of Children

The perception, attitudes, values and needs of children in the outdoor environment change as they grow up. Tuan (1974; 56) stated that unlike the toddler, the older child is not tied to proximate objects and surroundings; he is capable of conceptualizing space in its different dimensions; he has much of adult's conceptual ability.

“There are different kinds of play, different stages of play, and different purposes underlying play. The play of preschool children is different from the play of toddlers, which is different

from the play of school-age children” (Jones and Reynolds, 1992). The older children do not like to be dependent on objects which are presented for their play activities within a defined space which is planned for the play activity. Rudofsky (1969) defines ‘planned play’ as a diabolical invention for retarding child’s development and says that some of child’s free time is ruined by ‘planned play’.

Traditional playgrounds can answer the needs of pre-school children, but they are not appropriate for the physical, perceptual, emotional, social and intellectual stimulation of older children. Fjørtoft and Sageie (2000) stated that the physical planning of playgrounds has not addressed children's needs for a diverse and stimulating play space.

In order to develop their motor skills, school age children need physical stimulation, but fixed and non portable equipment in traditional playgrounds limit their physical activities. Because of their physical competence, they need and prefer to play with movable parts. Moreover, this group of children need more than physical stimulation, the social value of play is more important for them, that is why; they prefer to play in groups rather than swinging alone. So, any play space should provide children with opportunities to develop, not only motor skills but also emotional, social and intellectual experiences, which are necessary for stimulation of perceptual growth.

The results of a research project, conducted by Susan Herrington and Ken Studmann between 1995-1997 in the outdoor play yards at the Child Development Laboratory, Iowa State University, reveal that playground equipment are not enough for the child’s basic needs.

“Unfortunately, the outdoor environment of these centers typically consists of isolated pieces of equipment in a mono-culture of grass. This ‘place-less’ equipment-based approach to designing playgrounds does not speak to the qualities of being outdoors. Additionally, the equipment primarily addresses the physical development of the child. Children's social, emotional, and cognitive development must also be considered. Design processes that explore ways to support other types of development and include the unique aspects of the outdoors are greatly needed to produce quality environments for children” (Herrington and Studmann, 1998; 191).

As explained in section II.4.1, there are three types of playgrounds; ‘traditional’, ‘adventure’, and ‘contemporary’. “When children are given the choice, they prefer adventure, contemporary, and traditional playgrounds in that order” (Hayward et al., 1974, cited in Barbour, 1999; 76). In the micro scale, within residential areas, it is not possible to see the

real representatives of 'adventure' and 'contemporary' playgrounds. What is more the traditional one is not appropriately designed for the needs of different age groups. Therefore, children are not lucky to have choice on the types of playgrounds in the micro scale.

Researches reveal that young children do not prefer to play in traditional playgrounds because of the lack of design elements and sufficient play equipment. "Play structures primarily support physical development (Frost, 1989, cited in Herrington and Studmann, 1998; 192) which is only one realm of development". The type of play equipment is directly related with children's developmental stages and needs, older children actually want movable parts. As Heseltine and Holborn (1987) stated, the mere provision of a swing or slide is insufficient to meet the requirements of children's developmental needs. "Some studies have indicated that play equipment alone engages a child's attention for only about 14 minutes" (Birkeland-Corro, 2003).

Also Dattner (1969) indicates the lack of anything to inspire interest or curiosity in the typical playgrounds. The existing play equipment, such as climbers, slides and swings in traditional playgrounds limit children's creativity and physical competence. According to Hart and Iltus (2001), stationary playground equipment, designed for only one type of play, can never be as creative as a pile of wood, old wheels and so on.

Physical competence of school age children is limited in traditional playgrounds, so they may have problems of maintaining social interactions, because they need kinds of equipment that enable them to play in groups, they need face to face interactions. According to Barbour (1999), physical competence itself affects children's choices of activities and of play partners, further more influences the means through which children initiate and maintain social interactions.

The social function of play is more important for children rather than its function to develop motor skills. That is why they prefer to play in play spaces, which enable them to interact with others and which offer opportunities to establish social interaction and variety of experimentation with the physical world. According to Eriksen (1985), traditional playgrounds are uninteresting, they do not stimulate the child's emotional, social and intellectual development, do not allow experimentation with the physical world.

The child needs opportunities for the experimentation with the physical world. Diversity of physical and natural elements, activities and experiences together with complexity and surprise in the outdoor world can give the child several opportunities to experience the physical world. While playing, they need to discover, to create and to challenge, rather than being segregated within a place with a piece of non portable equipments. As Fjørtoft and Sageie (2000) state that previous studies have explained children's experience of place and their special preferences for the unbuilt and unstructured environment.

“The research all over the world shows that children choose to play where the action is. They don't want to be segregated the way they are in playgrounds. Playgrounds fail. They don't attract children. Children only go to playgrounds, generally, when they are taken there” (Hart, 2002; Playing in the City Panel). Most of children who are taken to the playgrounds are the ones who need adult supervision while playing. On the other hand, while playing, the school age children do not need adult supervision and they do not prefer to play in only physically segregated play spaces like playgrounds.

Except from the lack of ‘variety’ for physical, perceptual, emotional, social and intellectual experiences in traditional playgrounds, and the location of them within the residential area is important factor for children's preference. Children prefer easily accessible play spaces, also they like to play near to their homes.

III.3.2 Needs of Parents

As explained in section II.4.2.1, comfort, relaxation, passive engagement, active engagement, and discovery are the basic needs of people in any public space. Traditional playground is such a kind of public space that, parents need to satisfy their needs depending on the satisfaction of their children. Parents' preference for any playground is related with their children's safety and satisfaction in that play space. On the other hand, their major concern is about the safe accessibility to existing playgrounds.

Within a traditional playground, child safety and comfort can be provided with safe play equipment, and some design elements such as seating, shelter from the sun, restrooms and landscape elements. When the major concern is child's safety, not only the playground but

also its surrounding should be safe. In this sense parents' needs in any traditional playground also related with the safety of the surrounding site, especially the residential street.

Both parents and children need easily accessible, safe, suitably designed playgrounds for the development of both motor skills and also social, emotional and cognitive skills. On the other hand, most of today's traditional playgrounds lack the necessary equipment for the developmental needs of school age children, and they are usually not easily accessible. In general, traditional playgrounds have being utilized by parents with the younger children and toddlers.

III.3.3 Needs of Other Adults

Like parents, other adults have some needs in playgrounds. Playgrounds can be considered as public amenity in the residential areas; comfort, relaxation and passive engagement become basic needs of adults as explained in section II.4.2.1.

III.4 The Lack of Design in Traditional Playgrounds

Why traditional Playgrounds are empty? Researchers have been discussing the inefficiency of traditional playgrounds and trying to answer this question. As mentioned above, traditional playgrounds lack providing the needs of their users, and even they limit child's imagination and creativity. La Farge (1988, cited in Metin, 2003; 31) discussed the inadequate form of traditional playgrounds from two points of view: safety concept and deficiency of play value. According to him, today's playgrounds are still reflecting the same goals with the first playgrounds in the late nineteenth century. And Winawer (1965) stresses that, traditional playgrounds do not answer the needs of modern children.

“Traditional Playground concepts must go because they offer insufficient answers to modern needs for children's play spaces and also because they offer the wrong answers. Not only does the traditional playground stifle a child's imagination and creativity and endanger life and limb but it is usually in the wrong place and it is inefficient. This inefficiency of traditional playgrounds is, perhaps, the most startling defect in an age when what is efficient is often equated with what is good” (Winawer, 1965; 71).

Today, the majority of 'traditional playgrounds' are hard surfaced with open spaces for ball games and with the random groupings of standard play equipment such as swings, seesaws, monkey bars, which are for the active gross-motor play, but they do not contribute to social play, construction play and sensory play. Also, hard surfaces and unsafe equipment cause accidents. Hart and Iltus (2001) state that they design play areas that do not include play equipment for active gross-motor play, such as swings, slides and climbing frames, where injuries can occur and they believe that there may be a benefit in using the words 'children's area' rather than 'play area'. 'Children's area' provide children with social play, construction play, sensory play and gardening facilities, which are valuable components of play.

Rudofsky (1969; 328) defines the play activities in playgrounds as 'planned play' and states that child gets his first bad taste of the drearier forms of play in the confining space of a playground where so-called playground furniture has been set up for taming the child-concrete bunkers and metal cages, abstractions of the modern city.

Planned play, elementary forms of play equipment and parent's supervision are needed by junior children, however the older children do not like planned play. Planned play in formal play spaces and non portable equipment may cause older children to show aggressive behavior and vandalism.

“We have noticed that when children are herded together in the playground, which is where the educationalists and the psychologists and the social scientists gather to observe them, their play is markedly more aggressive than when they are in the street or in the wild places” (Opie, and Opie, 1969; 13).

As Heseltine and Holborn (1987) states, playgrounds can provide children with some unique educational experiences, on the other hand they are usually viewed as a method of separating children from the environment. According to Ward (1978), the provision that is made for children's needs operates on one plane, but children operate another, they will play wherever they happen to be. So, their needs in the outdoor world can not be answered only by improving the conditions of playgrounds, since they are interested in the same environments as adults. Rather than segregating their play spaces, outdoor world, especially the home environment should be made more accessible to them.

Children as they get older need more than developing their motor skills. The environment in which they play should provide them a sense of place to which they belong to. Today's playgrounds lack of stimulating and challenging information, so children do not have variety

of choices and experiences, which are necessary to make a sense of place. The only provision of play equipment can not contribute much to the development of children;

“Today’s playgrounds are barren and devoid of character. They promote a sense of placelessness as the reliance on pre manufactured play structures in the playground makes each one look identical. These structures are primarily designed to address the development of the sensory motor skills of the child and research has shown that this represents only ten percent of a child’s total needs from this type of an environment” (Watts, 2003; Thesis Abstract).

Traditional types of play equipment, such as swings, slide and monkey bars provide the child only with the repetition of the same physical activity and restrict the child from developing different physical experiments. In order to establish variety of experiences, multifunctional structures, which allow more developmental exercise and social interaction, are provided in playgrounds. “However, some studies indicate that children find streets and backyards more interesting than playgrounds. It may be that children are interested in the same environments as adults and so rather than segregating children’s spaces, adult spaces could be made more accessible to children” (Birkeland-Corro, 2003; Introduction).

As children get older, they look for challenge in complex manipulative environments with variety of experiences and need to develop social interaction with different age groups. So, for the full potential of healthy development, children need the freedom of choosing their play environments. “One should be able to play everywhere, easily, loosely, and not forced into a ‘playground’ or ‘park’. The failure of an urban environment can be measured in direct proportion to the number of playgrounds” (Prof. Hermann Mattern’s at University of Berlin at the Congress of the International Federation of Landscape Architects 1968, cited in Ward, 1978 ; 87).

According to Ward (1978), such an approach can be seized upon as a justification for not adapting the city parks to the needs of contemporary citizens, or for not creating pocket parks in vacant city sites, and for not redressing the imbalance in the areas of public open space available to the inhabitants of rich and poor districts in the city. The problem can be considered as the absence of continuity of play and of play provision in the city, and even in the micro scale. Not only the lack of design in today’s playgrounds, but also the lack of opportunities for the continuity of play in residential areas can be regarded as problems for today’s urban child.

As explained in section III.1, the results of modern movement for the alienation of the child in the city were criticized and the most well-known solution was from Architect Aldo van Eyck, who tried to establish continuity of play throughout the city by converting the vacant city sites into playgrounds. On the other hand, today it is difficult to find vacant city sites to establish continuity of play in the city, because of rapidly changing urban pattern, densely populated cities and motor vehicle claim in everywhere.

III.5 Parental Concerns for Playing in the Playgrounds

Today, there is a general tendency that traditional playgrounds can not offer sufficient answers to the needs of modern children. Besides the lack of design and inadequate play equipment that allow child's creativity in the playgrounds, there are some other factors which cause children not to prefer to play in them.

The level of distance of playgrounds to the home is the main concern for parents. Also, parents prefer their children to play under their visual control. As it will be explained in section IV.2.2 and IV.3, parents have concern for their children's safety in the outdoor environment, especially because of speed of cars in the residential areas, but proximity to home is important factor for child's play while playing outside. Thus, rather than allowing their children to go to playgrounds, parents may prefer them to play near to home.

Abu-Ghazze (1998) states that children, who live in the cities, have to rely on their parent's willingness to allow them to visit nearby outdoor play areas. As explained previously, children today are provided with indoor oriented play facilities. However, "in the Third World countries, the most attractive place for play is the street. Limited finances prevent many parents from providing children with other means of socialization" (Abu-Ghazze, 1998). It seems that child's freedom for outdoor play depends on the level of financial development in the communities.

In order to prevent the concerns of parents and provide children with equal rights in the safe outdoor play spaces, some design criteria should be considered. Fjørtoft and Sageie (2000) stated that safety and accessibility may be important criteria in the planning and management of future play spaces for children.

Accessibility to play spaces is related with the safety of outdoor environment, both surrounding of home environment and surroundings of play spaces. Children need and have the right for safe access to play spaces without adult supervision. Thus, any outdoor play space in neighborhoods should be considered with its surrounding, that is the residential street, which is a part of children's play activities and which connects all other activities. Due to children's preference and interest to play on the streets in the residential area, streets should be reconsidered as a play space, like in the past. Tranter and Doyle (1996) argue a case that streets need to be reclaimed as a play space. And they state;

“Allowing children to play in the local streets has benefits not only for the children, but also for parents involved in their transport, for adults of the neighborhood concerned with building a sense of community involvement, and for the community at large in terms of traffic congestion and related problems”.

It is clear that the introduction of formal play space brought its problems itself. Although the needs of children about play spaces are universal, it has not been possible to provide children with the equal play space opportunities. Today, both developing and developed countries still tries to find solutions for better and safer play spaces and children are still establishing their own informal play spaces. As it will be explained in section IV.3.1, the design of '*woonerf*', is seen as a solution to provide children with the continuity of play environments in safer neighborhoods. On the other hand, in most of the third world countries, residential streets remain as being informal play spaces, despite the dangers of automobiles and concerns of parents. Thus, the function of residential street should be re evaluated not only as informal play space, but also as being a channel for the mobility of children by themselves.

CHAPTER IV

RESIDENTIAL STREETS

“Streets are an important part of the landscape of everyday life. People rely on them for such daily activities as travel, shopping, and interaction with friends and relatives. Much social life and learning occurs along streets” (Francis, 1987; 23). Yet there has been growing concern that the street no longer holds this position. Today the street is considered as the property of cars. Even the loss of residential street as a social space and as a play space has influenced the everyday life of children.

If properly designed, the residential street provides children with several opportunities for investigation, exploration, practice of skills and contributes to the development of social interaction, which is necessary for child’s development. Residential streets are behavioral settings that provide several stages on which children’s activities could be performed. Because of its variety; diversity, complexity and surprise, in terms of physical elements, settings and activities, the street attracts children as a play space and as a social space. For these reasons, continuity of play can be regarded as depended on the proper design of the residential street.

IV.1 Function of the Residential Street for Children

Play can be defined as freely chosen, personally directed, intrinsically motivated behavior that actively engages the child (Kenneth et. al., 1983; cited in Mussen, 1983). Toddlers and younger children are taken to playgrounds by their parents and they need parental supervision while playing. On the other hand, as explained in section II.4.1, older children

(school age children) do not like programmed play in traditional playgrounds. They prefer to establish their informal play spaces, which can be sidewalks, streets, backyards, front yards, or any other vacant lot in their neighborhoods. Within these informal play spaces, the street can be considered as being the most valuable due to its variety of functions.

As explained in the previous chapters, 'play' does not mean developing the child only physically, its social and educational contributions to the development of children are also important. Researchers have shown that much of a child's learning take place close to home (Carr and Lynch, 1970; Hart, 1978). In the micro scale, in the neighborhood, as being the most immediate outdoor environment, the residential street is the place where the child learns to deal more competently with everyday environment. According to Francis (1987), the street should be a comfortable setting where learning by children, teens, and the elderly alike can take place naturally. The experience and interpretation of the street by all age groups is critical to the continued education and development of an urban society.

In general, children have been brought up in the centre of a matrix which consists of home, school and playground. All of them should be interlocked with a visible relationship. On the other hand, the planning of modern communities separated these areas and the child has no reference point. For this reason, child's experience in the residential street is important to be able to observe the environment while moving in it.

According to Lynch (1960), the contents of city image, which are referable to physical forms, can be classified into five types of elements: paths, edges, districts, nodes, and landmarks.

“Paths are the channels along which the observer customarily, occasionally, or potentially moves. They may be streets, walkways, transit lines, canals, railroads. For many people, these are the predominant elements in their image. People observe the city while moving through it, and along these paths the other environmental elements are arranged and related” (Lynch, 1960; 47).

In the micro scale, if we try to understand child's point of view, the residential street can be defined as being paths through which the child moves in the residential area and observe the neighborhood while moving through it and arrange and related other environmental elements. “Children, unlike adults, see streets as more than simply corridors for movement. Even, when children do use streets to move from one place to another, they can also use them for creative play” (Tranter and Doyle, 1996).

Since the neighborhood is one of the immediate everyday environments for children in the micro system (see figure 2.1.), the streets can be considered as the most immediate outdoor environment for children in the micro scale. The residential street both serves as a channel of movement for children, and also as a play space and a social space for them. According to Appleyard (1981), streets have been the places where children first learned about the world. That is why; special importance should be given to the residential street within the other play spaces in the neighborhood.

“The most important part of residential area design today becomes the street- the face block neighborhood with the street as a seam tying together opposite rows of houses. This configuration is particularly important in areas of high- density housing where the street serves many purposes, such as a playground for children and a place where people meet and chat” (Hester, 1975, cited in Lang, 1994; 269).

In today’s urban pattern, streets are functional resources to adults, whereas children still value them as play spaces and determine the quality of the street environment by the presence or absence of play opportunities. Whether particularly designed or not, the residential street attracts children to be a play space. The major questions to be addressed here are; what is the function of residential street for today’s children and what are the components of it that influence the use of residential streets as play spaces. Thus, some movement to reclaim the residential street as a play space should be analyzed in order to understand the possibilities of streets as play spaces in today’s urban pattern. The aim is to understand whether the residential street can contribute to the continuity of play and play provision in today’s urban pattern or not. In order to differentiate the function of residential street for today’s indoor oriented children, first, the function of residential street in the past will be explained briefly.

IV.1.1 Function of the Residential Street for Children in the Past

As explained previously, introduction of motor vehicle in the urban environment restricted play opportunities and free and safe movements of children in the outdoor environment. Before the dominancy and speed of motor vehicle on the streets, there was no need to separate the children into formally designed play areas. The street used to function in many ways, especially for child games. “The poorer the street, the more absent were vehicles, and consequently the greater was the opportunity the street itself provided for children’s games,

and of course, because of overcrowding, the greater the need to use the street'' (Ward, 1978 ; 117).

''When children play in the street, they not only avail themselves of one of the oldest play-places in the world, they engage in some of the oldest and most interesting of games, for they are games tested and confirmed by centuries of children, who have played them and passed them on, as children continue to do, without reference to print, parliament, or adult propriety'' (Opie and Opie, 1969; 1).

According to Opies (1969), children had stopped playing in the way we ourselves used to play and the traditional street games are dying. Today, speed of car and car parking occupancy in the residential area deprive children of playing freely on the residential street. Street games were replaced by indoor oriented ones. Before the dominance of cars on the streets, children had free movement in their home base environment, especially the residential street in which they could play street games without fear of dangers of cars. Ward (1978) states that the ordinary residential street was free of fast- moving traffic and it was a safe place to play.

Rudofsky (1969) mentioned the childhood memories of American scientist Albert E. Parr and states that ''his account as is instructive because it permits us to enter the frame of mind of a European child to whom the street was an open book, superbly illustrated, thoroughly familiar, yet inexhaustible''. On the other hand, for today's children it will be difficult to remember some memories of their free activities on the safe streets.

Besides being a play space for children, one of the traditional formulas of the residential street was being a social space in which people meet and talk and children develop social roles. According to Günay (1988), the modern movement is a milestone in the development of twentieth century architecture and town planning theory and has changed the understanding of circulation systems of previous approaches as all other aspects of cities, with wide open streets with rejecting all the traditional formulas of the streets. As a result of modern movement, changes in the traditional formulas of the street deprive children from participating in the outdoor world without adult supervision, even in their neighborhoods.

If children's needs and especially their rights are considered, the street, as being a public space, belongs to not only adults, but also to children. In terms of spatial rights in any public space, the residential street should be safe, accessible and fit the needs of children.

IV.1.2 Function of the Residential Street for Today's Children

As mentioned in the first and second chapters, children today are more dependent to indoor oriented play facilities. Modern Movement resulted with the segregation of land uses, made independent living environment accessible to children only by parents or adults. Lang (1994) has stated that the mobility of families means that the environment of childhood is increasingly an environment of strangers. According to Jacobs (1961), the rebuilt city has junked the basic function of the city street, and with it, necessarily, the freedom of the city. In Ward's (1978) view, the car in the street and television in the home have destroyed the rich and varied accumulation of street games.

“The idea of “the street as a place for play” has been replaced by the notion of “the street as a place for cars only”. For many children, the loss of the residential street as play spaces has dramatically reduced their opportunity for creative, self directed, spontaneous and interactive play” (Tranter and Doyle, 1996).

Buss (1998) defines the street as one of the important laboratory for children's cultural learning, physical exploration, and social growth, but she states that the street no longer holds that position for many children, due to the physical and social degradation, which prohibits children from using it. Although today's residential streets are more car oriented, they still attract children with their variety; diversity, complexity and surprise.

According to Abu-Ghazze (1998), there are many things that attract children to play in the streets. In order to ensure child safety and prevent parental concerns about their children safety outdoor, there should be permanent solutions to improve the conditions of streets. Children have the right to share the outdoor environment with adults; one of their ways to do this is through play. Thus, the function of residential street as a play space will be explained.

IV.2 The Residential Street as a Play Space

Proximity to home is important for children, especially when they are playing outside. As Heseltine and Holborn (1987) stated, the street is the child's immediate environment, it is near to home, and it is a world full of movement, involvement and people. The proximity to the home gives security and a place from which materials can be brought and used. Also, parents can have visual control on their children if they play near to home. “Streets have had

especially important role in children's loose-knit social structure by providing a locus for peer contact a few steps from home'' (Piaget, 1970; Andrews, 1973; Rubin and Ross, 1982; Moore, R. C., 1987 and Reid et.al., 1989).

According to Abu-Ghazze (1998), the street provides setting that is conducive to childhood development and to various types of play that enable that development. The importance of street play lies in the central role that play occupies in the physical, perceptual, emotional, social and intellectual development of a child.

On the other hand, in today's urban pattern, nobody can claim that residential streets are only for children's play activities, but as being the most preferable play space for the activities of older children and adolescents, they should be safe and healthy. To force the children into a playground can not be solution for their healthy development, as Dattner (1969) states, play can occur only in condition of freedom. If they are forced to play in any planned setting, they feel pressure. So, in order to give children freedom of playing, their choices on play spaces should be considered. As mentioned in the first chapter, in this study, the attention will be given to the residential streets, where choice and variety are the keys to child's play.

IV.2.1 Why Children Prefer to Play on the Streets

''In the same way that an increased number of more formal play spaces are necessary for pre-school children, so there has to be an increase in informal play space for older age groups'' (Heseltine and Holborn, 1987; 29). Older children try to explore their own informal play spaces and play where the action is.

Outdoor play has been attracting the attention of today's indoor oriented children, whether they are provided with designed 'play spaces' or not. Parental concerns prohibit them to be away from home and go to playgrounds by themselves, or they may be allowed to go to playgrounds but there is not enough play opportunities in the neighborhoods. In all cases, children desire to be in the street, to play on the streets. As Moore, R.C. (1987) states, some children are ''pushed'' toward streets because of the lack of play opportunities elsewhere. Others are ''pulled,'' even if other play spaces are available, but the special attractions of the street not duplicated elsewhere. ''Street play is a universal cultural phenomenon'' (Ward & Fayson, 1973; Moore, R.C. and Young, 1978; Ward, 1978; Appleyard, 1981).

Both before and after the introduction of traditional playgrounds, street had been attracting children and they have always been the 'play space' for children. Both the lack of design in traditional playgrounds and the attractiveness of the residential street can be the reason for most of children to prefer playing on the streets. The attractiveness of the residential street can be related with the variables in it. 'Variety' as one of the components of urban fabric helps us to understand the preference of children and their satisfaction about the play space. Rudofsky (1969) summarizes the importance of the street for children and says "no other environment-least of all the classroom-tickles the senses as much as the street".

As Gür (1999) states, there are researchers, who support the idea that residential streets are making success as being not programmed child playing areas. She researched in some residential streets of Trabzon, Turkey. And as a result of her researches and observations in Trabzon, Gür (1999) has defined 'the residential' streets as;

"residential streets give opportunity for active, passive, cognitive, creative and imaginary plays,

residential streets can be utilized without the need for parent's control,

children can be under the visual and auditory perception area of the parents,

some accessories depending on the established play can be easily provided from the home,

by providing the continuity and permanence of play, residential streets help children to establish friendship and solidarity".

Above definitions are valid for the selected sites in Trabzon, Turkey. There are other examples from different countries that give evidence about the preference of children for playing on the residential streets rather than playgrounds; such as England. "In the early 1980s, Parkinson found that during school holidays, children played most often in the streets close to their homes but went further from home as they got older" (Children's Play Information Service, 2003; "Play in the Streets Near Home").

Similarly, research on housing estates in England in the mid 1990s found that children playing out tended to do so on the streets partly because they could more easily meet their friends there but also because much of the time they are moving about in search of others (Whewey and Millward, 1997, cited in Children's Play Information Service, 2003; "Play in the Streets Near Home").

On the other hand, IPA (International Association for the Child's Right to Play) is deeply concerned by a number of alarming trends and their negative impact on children's development, some of them are; “Society's indifference to the importance of play, inadequate environmental planning, which results in a lack of basic amenities, inappropriate housing forms, and poor traffic management” (IPA Declaration of The Child’s Right to Play, 1977).

Society’s indifference to the importance of play deprives children from playing in safe and healthy neighborhoods. The lack of proper play environments, which stimulate the child physically, perceptually, emotionally, socially and intellectually, increases the interest of the child to play on the streets, whether safe or not. Also, the street should be considered in terms of its contribution to establish social interaction. That is why, car dominance in the residential areas should be prevented and traffic management should be applied to provide the child safety and also to prevent parent’s concerns.

IV.2.2 Parental Concerns for Playing on the Street

Theories interpreting play puts more value to outdoor play, especially in terms of its contribution to the child’s social development. The use of any environment outside the home is, however, a “negotiation between caretakers, child and the characteristics of the environment” (Chawla, 1991; cited in Lang, 1994).

Children both need and also have the right to use the environment outside their home by themselves; on the other hand parents have some concerns about their children while they are outside. Parental concerns are the most important factors that make the child indoor oriented. Depending on the social structures and income levels of families, play habits of children may change and the child may be indoor or outdoor oriented. Ward (1978) explains the results of study of urban childhood by Drs John and Elizabeth Newson of the Child Development Research Unit at Nottingham University, and states their findings;

“... a further class weighting is given by the material circumstances of the family, which we noted as being relevant to how far the child was likely to be physically ‘off out’ among the poor group, or retained within the family circle. Descending the social scale, the accommodation dwindles while the family size increases, so that the mother is less able to tolerate children playing indoors and it quite simply becomes necessary to regard the street as overspill space. Further more, as one moves up the scale, the child is much more likely to have some place in the house which belongs

to him, where he can keep his own things; this immediately means that indoor play is both more positively encouraged and more inherently attractive for the child further up the class scale” (Ward, 1978 ; 33-34).

This continues to be the case, especially for today’s children, whose play habits can be determined by parents with the provision of after school facilities, pay for play centers, or computers games, which make the child more indoor oriented. The child may benefit from technological improvements, but the social side of play necessitates the child to share the outdoor world with others.

Parental concerns are not only related with the child’s outdoor play, but also related with their mobility while going to schools or any other place. As stated by Tranter and Doyle (1996), data from England show clearly the extent of the reduction in children’s freedoms over a period from 1971 to 1990.

“For example, when the percentage of 9 year old children allowed to visit leisure places alone was investigated, 68% of these children were allowed this freedom in 1971, but by 1991 the percentage had fallen to only 37%. The percentage of 9 year olds allowed to go to school unaccompanied fell from 88% in 1971 to a mere 27% in 1990” (Hillman et.al., 1990, cited in Tranter and Doyle, 1996; “The Changing Function of the Street”).

The results of research conducted in London reveals that parental restrictions imposed on the freedom of children in the outdoor environment. Hillman (1999) summarizes the result of their research and says “our research has recorded that whilst 80 per cent of 7 and 8 year olds went to school on their own in the early 1970s, less than one in ten were doing so two decades later” (Hillman, Adams and Whitelegg, 1991, cited in Hillman, 1999).

Also, Greenfield et.al. (2000) found that the number of primary school children who walked to school had decreased since 1990s and that there had also been a reduction in the number of children who said they traveled to school without an adult. When comparison is made with the lifestyle of previous generations of children, it would seem to be a cause for concern that such a high proportion of parents should feel it necessary to escort their children. That is why, the school age children are the major group in this study, and that is why the residential street is considered not only as a play space but also important property for child’s outdoor mobility. However, children’s free movement and extend of their mobility are restricted in today’s urban pattern.

Both parents and International Organizations have concerns about children's safety, especially in terms of traffic speed, since planning, even for residential areas give priority to cars rather than pedestrian movement. As Appleyard (1981) stated, control of traffic speed contributes to one's attachment to or detachment from a residential street. According to Moore, R.C. (1986), streets can provide excellent play opportunities depending on traffic density.

IPA Declaration of the Child's Right to Play (1977) states that the needs of the child must have priority in the planning of human settlements and planning should enable children to move easily about the community by providing safe pedestrian access through urban neighborhoods, better traffic management, and improved public transportation.

Although the residential street today is not a safe place for children, parents may prefer their children to play under their visual control. Also, they do not consider the traditional playground as a safe play space, because of the distance of playgrounds to the home, lack of visual control, and also the fact that children may take risks in wherever they play.

Because of the possible dangers and risks in any play space, parents prefer their children to play on the sidewalks or on the streets near to home. It does not mean that, streets are safer than playgrounds, but there is a tendency for children to be able to play freely on the streets. As Heseltine and Holborn (1987) stated, the street contains an informal regulating and supervisory system through neighbors and people using it. Young children are far more likely to be involved in problems in out-of-the-way, unsupervised areas. If the residential street is properly designed for the needs of children, not only children but also adults may benefit from its regulating and supervisory system.

It is clear that parental concerns may influence the freedom of children in the outdoor environment and provision of indoor oriented play facilities may change their play habits. But there is a fact that, streets are important components of children's daily life. Moore, R.C. summarizes this fact;

“Kids do play in streets-all kinds of streets-and nothing that planners, parents, or city officials can do will stop it. Indeed, there is every reason for celebration, for streets are the social hub of the neighborhood, where children meet, learn about each other and their adult neighbors, and investigate their surroundings” (Moore, R. C., 1987; 47).

It seems that the residential street versus traditional playgrounds in terms of its components that allow the child to experience the outdoor environment in many ways. In this sense, rather than restricting children's mobility or segregating their play spaces, collaborative approaches toward children's needs and rights will be more effective and also conducive to child development. Thus, children's needs and rights in public space, and even their opinions and participations in the design process of outdoor environment can be considered as important issues today.

IV.3 Residential Street versus Traditional Playground

As explained in the previous chapters, playgrounds do not contribute much to the physical, perceptual, emotional, social and intellectual development of the child. Krohe (1996) stresses the incapacity of playgrounds by saying "Just as hospitals are designed for doctors rather than patients, playgrounds are designed for everybody but the kids". According to him, even very young kid is capable of reasoned opinion about play alternatives. Researchers incorporating children's views, such as Moore, R.C. (1986), Francis (1987), Tranter and Doyle (1996), Krohe (1996), Abu-Ghazze (1998) reveal that children place a high value on streets as a play space.

"Fortunately for children, new design philosophies have emerged over the last 20 years which have led to a revolution in the way residential streets are perceived" (Tranter and Doyle, 1996). Such as, Smith (1986, cited in Tranter and Doyle, 1996) explains that there has been a "rediscovery... that the street had a public function beyond its mere capacity as a conduit-as a meeting place, for conversation, learning and play". And according to Moore, R. C. (1986), street play is an essential experience of childhood and it is learning for life.

Traditional playgrounds can be necessary for the needs of toddlers and younger children. According to Abu-Ghazze (1998), designated playgrounds can add important play opportunities and attract activity, but they cannot substitute for the immediacy of the street. Streets have always been used for close-to-home play; this will surely continue in the future.

Also, for a child, play can not be depended on time or place; he/she may want to play wherever and whenever she/he is. As mentioned previously, proximity to home is important

for child's play. Thus, children may benefit from the proximity of streets to their home without limitations to play time that exist in playgrounds.



Figure 4.1 Sign on the fence of Russel Pederson Playground in Brooklyn, USA
Source: Personal archive

“In fact most street games are as happily played in the dark as in the light”.
(Opie and Opie, 1969; 15).

“Playgrounds are important components of childhood environment as places in which to play and develop motor skills, but the preferred playground of children is the sidewalk and street” (Lang, 1994; 314). In terms of providing the child with opportunities to establish social relations and to carry out creative play, street play can be considered as contributing much to the needs and development of children. According to Moore, R.C. (1986), street play offers opportunities for physical exercise, sensory pleasure, testing and improving skills, emotional release, trying out autonomy and self-reliance, creative expression, adventure and exploration. And street play affects the personality, character, and ability of the child (Michelson & Roberts, 1979). As the child gets older, his/her ability to carry out free-ranging games increases and the child needs more opportunities for free play.

According to Opies (1969), in a playground it is impracticable to play the free-ranging games, which are performed by older children. The result of their observations and

interviews with children reveal that older children prefer to play in informal play spaces. When Opies (1969) asked children what games they played in the playground they have been told “we just go round aggravating people”. Structured play, adult interference or rules in the playgrounds may cause children to behave aggressively.



Figure 4.2 Sign on the fence of a playground indicating the rules
Source: Personal archive

Unlike the play opportunities in playgrounds, street play can be considered as unstructured and more appropriate for the physical activities of older children. “It is a widely held view that unstructured physical play is a developmentally appropriate outlet for reducing stress in children’s lives, and research shows that physical activity improves children’s attentiveness and decreases restlessness” (National Association for the Education of Young Children in Washington, DC, USA, 1997).

Streets serve as both informal play spaces and also as public spaces for child’s socialization and education by providing variety of environmental information with a range of choices and experiences necessary for child development. According to Abu-Ghazze (1998), the street functions as an agent of socialization, if there are people on the street whom they can safely meet, they can learn about social life. As explained in section II.2.1, children employ environmental information in their intellectual development, and according to Garling and Gollodge (1989) children receive information from the street environment.

Abu-Ghazze (1998) states that the street is a learning environment and on it children can learn much more about the nature and learning about their urban context depends on children’s freedom to roam safely in their neighborhood away from vehicular traffic or other

threats. According to Jacobs (1961), an informal educative environment should have street and block patterns that afford a variety of behavior settings. Streets are important informal play spaces as being educative environments both for child's socialization and for play activities. Also, streets and street corners are important meeting places and important ecological places (Carr and Lynch, 1970; Hara and Levin, 1973; Hester, 1984; Levine and Michelson, 1979; Lynch, 1972, 1977 and Moore, R.C., 1987) where children meet, learn about each other and adult neighbors, and investigate their surroundings.

If we consider children's preference for establishing their own informal play spaces, we should give special importance to the design of healthy, safe and livable streets. As Heseltine and Holborn (1987) stated, street are the most heavily used spaces for play so, more measures to improve the safety of the street and enhance play opportunities are required. According to Abu-Ghazze (1998), the street environment should provide a setting conducive to the full range of normal child development. The results of Abu-Ghazze's (1998) observations in Abu-Nuseir, a residential community in Jordan, reveal that the accommodative forces of the street environment affect the spatial and temporal relationship between children and street, and the physical environment of the street is an operative factor in human systems and a significant factor in the development and maintenance of a child's self-identity. The dominance of motor vehicle and the lack of necessary traffic regulations restrict the spatial behavior of the child in the residential areas. Also, the layout and the physical elements of the streets directly influence the play opportunities.

As stated by Krohe (1996), the street is the informal public space, available for play, is more plentiful and interesting in comparison to playgrounds. He gives Illinois parents as example, who prefers to move to suburb, where the child can play near or in streets without undue risk from car. He makes comparison between the playgrounds and streets in terms of their safety and attractiveness and says "the planning task thus becomes either to make playgrounds more exciting than streets as places to play, or to make the streets as safe as playgrounds. The latter may be easier". Like many other researchers, he considers the street as an important environment for child's play and puts value on the renovation of them for the benefit of children.

Since the introduction of first playground in the nineteenth century, planners and designers have tried to apply new planning tasks depending on the constraints of the rapid urbanism and as the cities grow, it has become difficult to provide the child with easy access to play

spaces. Thus, the continuity of play activity in the city has been restricted, even in the neighborhoods. The residential street as being the social space, in which the child easily meets others, can provide children with the continuity and permanence of play activity, if properly designed.

There are some organizations and movements which have been trying to reclaim the residential street as play spaces. Movements to make child friendly streets in European countries can explain the sensitivity in communities for child's rights and the possibility of making residential streets truly public spaces. They are from different countries, especially from Netherlands, Germany, Denmark, England etc., but they all aim to create pedestrian oriented streets rather than cars, and to create child friendly streets.

Evidence about children's preference for playing on the street can be from different countries and from different cultures, also vary depending on the environmental features and urban pattern, but the rights and developmental needs of children can be considered as universal.

IV.3.1 Movements in Different Countries

IV.3.1.1 Netherlands

As explained in section III.1, the first reaction to the alienation of the child in the Modern city, came from Netherlands in 1950s and Eyck's most famous playgrounds were explained in brief and clarified that his approach made success in that period. By designing seven hundred playgrounds, he made success to establish continuity of play in Amsterdam between 1947 and 1978, but urban pattern today does not allow designer to provide the continuity of play throughout the city. Even in the micro scale, the provision of outdoor play spaces is highly problematic.

“Eyck had been fascinated by the way that a heavy fall of snow in Amsterdam allowed children to become “temporarily lords of the city”. In a memorable phrase, he asked architects and planners to conceive a way of designing city spaces which gave children a right to freedom which was "more permanent than snow” (Worpole, 2002). Because of the child's restricted mobility and free movement in the urban environment, to give the child ‘freedom of action’ can be considered as the most important issue today.

Depending on the child's restricted 'freedom of action'; one of the major concerns of this study is about the continuity of play in the urban environment for today's indoor oriented children. Thus, there will be a brief comparison of Eyck's approaches to the continuity of play spaces with today's designers' approaches.

Lefaivre and Tzonis (1999; 69), describes Van Eyck's redesign of open areas in Amsterdam as "it slows down through traffic, extends and foregrounds protected encounter areas, shifts the focus of attention from remote vistas to the locality of the site". For today's designers the major concern is to slow down the traffic and to provide the continuity of play in the urban environment. On the other hand, the density of motor vehicle in today's urban environment is serious problem for the pedestrians, especially for the child. Eyck's design of 'play-space on a traffic island' reveals how the changing urban pattern and the density of motor vehicle restrict the designer to establish play spaces throughout the city.

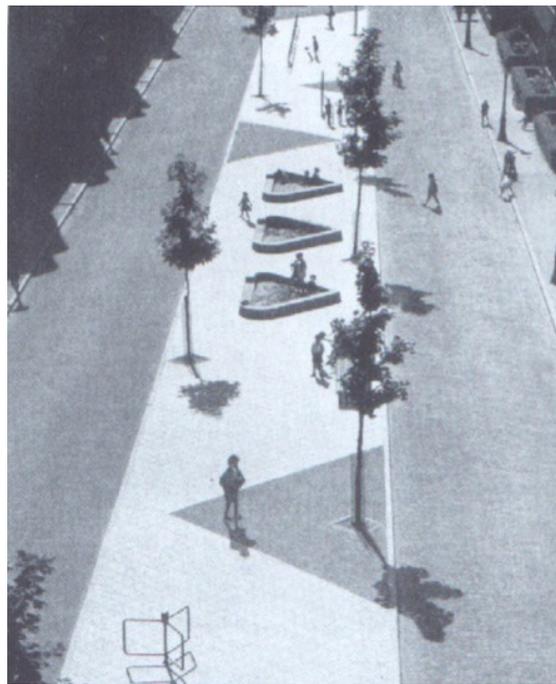


Figure 4.3. Play-space on a traffic island, Saffierstraat, Amsterdam, Holland Holland (1951)
Source: Ledermann, A. and Trachsel, A., 1959, p: 40

In Saffierstraat, Play-space on a traffic island, Eyck tried to answer immediate user needs by exploiting opportunities offered by the available site. And rather than segregating child's play spaces, considered them as conditions of everyday life. "For Van Eyck...the

playgrounds were actions in space occurring where and when needed” (Lefaivre and Tzonis, 1999; 54). However today, ‘outdoor play’ is not considered as conditions of child’s everyday life, instead child’s play activity depends on adult imposed rules mostly in limited time and with limited opportunities.

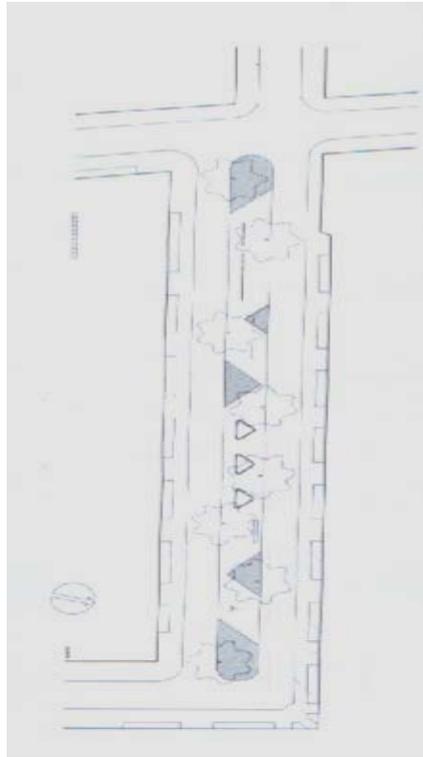


Figure 4.4 Plan of the Play-space on a traffic island, Saffierstraat, Amsterdam, Holland
Source: Ledermann, A. and Trachsel, A., 1959, p: 40

As stated by Strauven (1998), Saffierstraat was a central reservation of suburban road, measuring nearly 120 meters long and 6 meters wide. In order to escape the longitudinal perspective, Aldo used a compositional technique used for laying out oblong areas by disposing the elements diagonally.

“The reservation is paved with diagonally white concrete tiles contrast sharply with the clinkers of the surrounding streets, a brown mass of paving that invades the white reservation in sharp triangles. The effect of these penetrations is to interrupt the length of the reservation and give its diagonally paved surface a dynamic character. The white area of the reservation becomes an ‘in-between’ where the opposite sides of the street meet ... This concept of the place as an ‘in-between’ found its most

evocative application in the relatively small and enclosed location of Dijkstraat (1954)” (Strauven, 1998; 161).

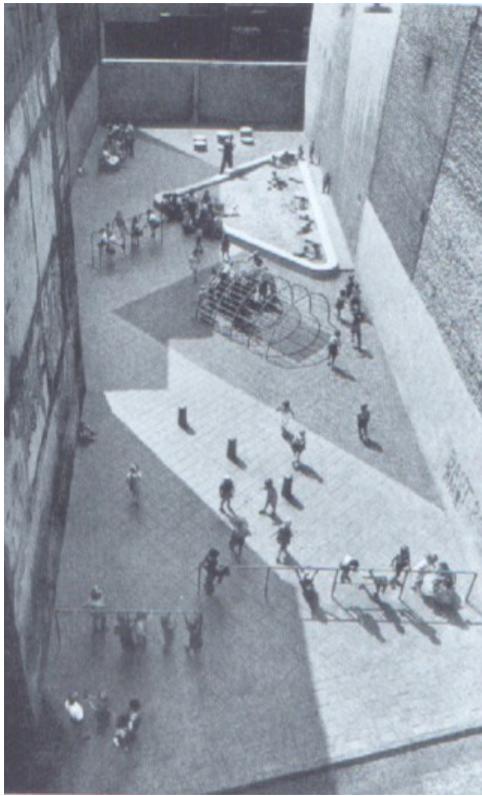


Figure 4.5 Dijkstraat, 1954

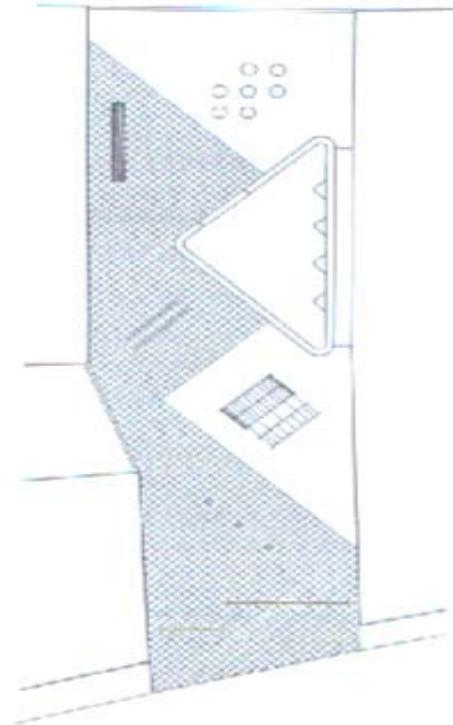


Figure 4.6 Ground Plan, Dijkstraat

Source: Lefaivre, L. and Tzonis, A., 1998, p: 75

“Dijkstraat was constructed on the site of a house which had been pulled down during the war, a waste lot nesting between two high walls, with a depth of 25 meters and a width varying from 9 to 11 meters. Van Eyck transformed this void into a place by treating it as the meeting point of two imaginary external frames of reference” (Strauven, 1998; 161-162).

For today’s designers, another concern is about the accessibility and the provision of social interaction in the urban environment. “Van Eyck conceived the playgrounds as means of contributing to dialogue and community for the greater number, making it possible for people to physically come closer without having barrier” (Lefaivre and Tzonis 1999; 70). On the other hand, design principles applied to today’s playgrounds, car dominance in the residential areas, lack of safe accessibility, and children’s restricted ‘freedom of action’ in the urban environment, can be considered as barriers to social interaction.

As explained in section III.1 Eyck's approach was transition from 'closed' playgrounds and application of 'open' playground system in each neighborhood. So, he did not consider the playgrounds as fenced and physically segregated areas like today's formal play spaces. Today, playgrounds are considered as to be physically segregated and separated from the outdoor environment to prevent the child from the risks of traffic.

By designing 'open' playground in every neighborhood, Eyck focused on the relationship between urban place and urban structure in order to create continuity of play spaces in the city. On the other hand, opportunities to design outdoor play spaces change depending on time, urban development, social and economical status of communities. Because of today's rapid urbanism, it is difficult to find odd or empty spaces to be converted to play spaces.

Lefaivre and Tzonis (1999; 17) have stated that, in 1960s, van Eyck's playgrounds were called as 'people's park', involving citizen participation. The location of each of the playground was not the result of an-a-priori plan, but of a direct response to popular demand. Today, designers are aware of the benefits of public participation in the design of public spaces, especially the child participation in the design of their environments.

Eyck's achievement was to transform leftover city sites into 'people's park'. "In 1960s such an approach was called as 'incremental' or 'infill' strategy, accommodating immediate user needs, and exploiting opportunities offered by the immediate available sites" (Lefaivre and Tzonis, 1999; 17). By 1970s, there was not left over city sites to accommodate the user needs and the street, as being the most immediate outdoor environment, was reconsidered to exploit opportunities and new approaches have come out, such as '*woonerf*' design, which re-considered the functions of residential streets as a play space and as a social space.

It is clear that the solutions to answer the child's needs have been changing in time. Today, there is a general view that playgrounds do not contribute to the needs of contemporary children. And new approaches have been developing depending on the importance of children's needs and their rights to 'freedom of action' in the urban environment, especially in the home environment, which is the residential area. Thus, in our post modernist world, designers have been trying to find solutions for better play spaces and livable neighborhoods. And researchers are aware of the impossibility of forcing the child to play only in segregated play spaces. Today, researchers are trying to find the best way to provide children with what they really need.

“...There is an assumption when you think of children’s play that you have playgrounds. It is my belief that playgrounds were never created in the best interest of children. Because playgrounds are not a natural phenomenon, we have to step back and rethink things completely about what would be the best way to provide for children” (Hart, 2002; Playing in the City Panel).

In our rapidly changing urban environment, the major concern is the lack of child’s ‘freedom of action’. Thus, the residential street should be reconsidered in terms of its contribution to child’s play by providing variety of activities, and assisting the physical, social, and educational development of the child.

In many countries, residents and public authority have become concerned with making residential streets more livable and accesible for pedestrians. “Pioneered by environmental design researchers such as William Whyte (1980) and Donald Appleyard (1981), the ‘livable streets’ movement recognizes the importance of the street environment for the social life of cities” (Francis, 1987; 26). “It emphasizes opportunities for greater safety, security, and social contact particularly on residential streets, where traffic and the street quality directly affect residents satisfaction” (Appleyard and Lintell, 1977, cited in Francis, 1987;26).

According to Francis (1987), as in the pedestrianization movement, design and planning innovations from Europe served as a form of inspiration. “One of the oldest and most active effrots to restrict automobiles in favor of people has occured in Netherlands” (Carr et.al., 1992). For example, the Dutch ‘*Woonerf*’, or ‘play street’, is viewed as an effective way to reduce traffic speed and provide for social activities, such as ball play, sitting, and communal use of neighborhood space.(Royal Dutch Touring Club, 1980). Today, woonerf is considered as a form of inspiration to create safer neighborhoods for child’s and adults.

“One country that I like to show people is the Netherlands, because it is the most built up, dense country in the industrialized world, and they have been able to be very creative in responding to children’s needs. They have closed thousands of their streets to traffic at one end. And what that was done for, initially, was to stop cars from charging down through the environment, so that people would feel comfortable letting their children play outdoors In fact, it did more than that, beyond what people expected. When you close a street, it also creates a kind of semi-public space. People now feel that is a safe space, and people feel free to challenge strangers entering the street” (Hart, 2002; Playing in the City Panel).

What is a “Woonerf”

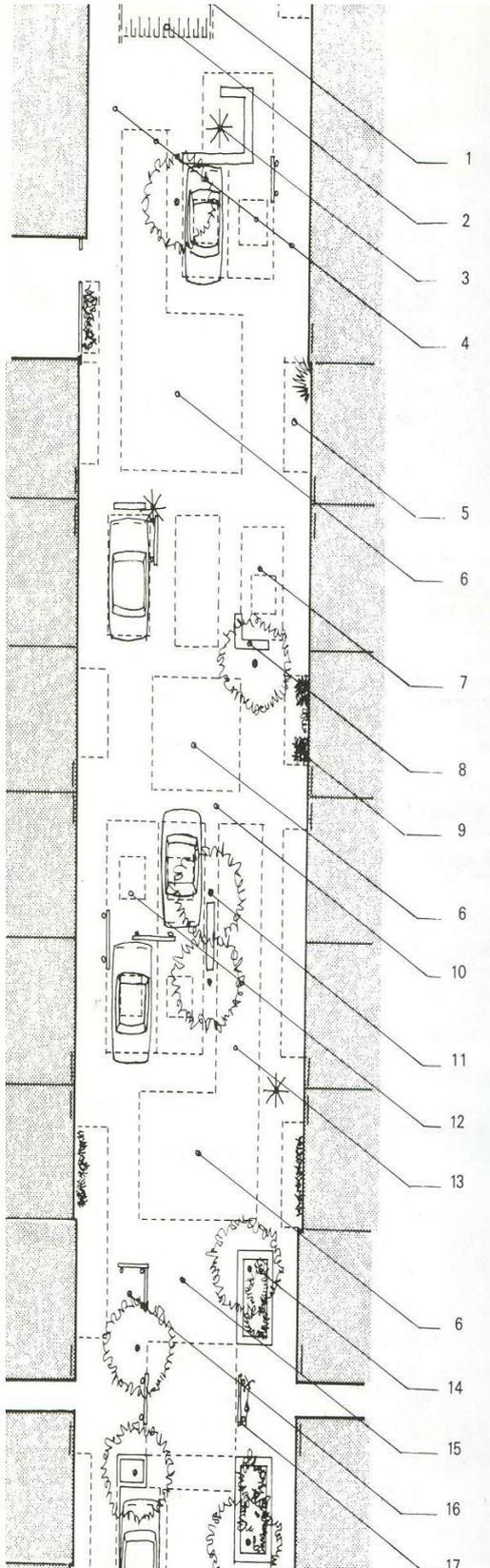
As stated by Royal Dutch Touring Club (1980), in the 1970s the Dutch government was pursuing a policy of making traffic more compatible with housing and residential areas. Following several years of experiments by a number of local authorities and after proposals and policy plans were cast in their final form, the new legislation governing *woonerf* was introduced in 1976. The legislation falls in two parts;

A code of behavior prescribing regulations which road users must observe when in a *woonerf*,

Minimum design and furniture requirements which contain a number of detailed regulations governing the design of streets to ensure that a *woonerf* street is clearly distinguishable from a traditional one.

A *woonerf* is an area in which the residential function clearly predominates over any provisions for traffic and in which this is expressed by the design and lay-out. The features of the *woonerf* have to comply with the requirements prescribed by the Central Government, which in this case is represented by the Ministry of Transport and Public Works (Royal Dutch Touring Club, 1980).

The boundaries must be clearly indicated and special traffic regulations apply within it. It does not mean an area of free of traffic or cars, for in principle all vehicles are allowed admittance. Nor is it confined to purely residential areas for it may also embrace areas containing e.g. shops, churches, play areas and schools as well as houses. The essential point is that the area's residential function must always prevail (Royal Dutch Touring Club, 1980).



1. no continuous curb
2. private access
3. bench around low lighting column
4. use of varied paving materials
5. private footway
6. bend in the roadway
7. empty parking lot: place to sit or play in
8. bench/play object
9. on request: plot with plants in front of facade
10. no continuous roadway marking on the pavement
11. tree
12. clearly marked parking lots
13. bottleneck
14. plant tub
15. space for playing from facade to facade
16. parking prevented by obstacles
17. fence for parking bicycles etc.

Figure 4.7 Woonerf Plan
 Source: Royal Dutch Touring Club, 1980, p:8

Features of a 'Woonerf'

Royal Dutch Touring Club (1980) defines the features of a *woonerf* as follows;

Creating an attractive, welcoming street-scape which appeals to pedestrians; numerous trees, variety in the paving materials, plant tubs, street furniture and parking racks for bikes and mopeds,

Restricting parking to sites indicated by a letter P on the road surface. Parking elsewhere is therefore prohibited,

Play areas for children from which cars are banned are a must. In addition, constrictions should be created in the roadway wherever children often play to make it safer,

Not creating any features which suggest a division of types of traffic (and hence priority for motorized traffic). No separate carriageway and no long straight kerbs,

Designing the areas as an entity to which pedestrians have full access but which is less accessible to vehicular traffic,

Introducing features such as sharp bends, sleeping policemen and narrow sections of roadway which change the character of the street and ensure that traffic travels more slowly. Long straight sections (which give a long sight-line) encourage higher speeds and should therefore be avoided.

As stated by Royal Dutch Touring Club (1980), since the first demonstration schemes in Delft and Rijswijk, the *woonerf* designation has been applied to well over 7,000 streets and residential areas.



Figure 4.8 Rijswijk: Demonstration Woonerf



Figure 4.9 Rijswijk: Street detail

Source: www.whitbybird.com/press/papers/homeZones_observed.pdf



Figure 4.10 Delft: Woonerf



Figure 4.11 Delft: Specified parking

Source: www.whitbybird.com/press/papers/homeZones_observed.pdf

According to Wynne (1980), the *woonerf* is among the most elaborate physical interventions converting local distributor roads into residential yards within the street hierarchy. Entire residential precincts are designed with an eye to eliminate through-traffic and to reduce driving speeds. And, such districts have been described as ways to ‘humanize’ the street, but ‘child-ize’ is a better term according to Krohe (1996). The physical layout and elements provide children with variety of play experiences, while providing social interaction to adults. According to Hart (2002), by closing thousands of their streets to traffic at one end they create a kind of semi-public space, in which people feel free to let their children play outdoors and also to challenge strangers entering the streets.

If the residential streets are reclaimed as play spaces for children, they become not only safe and healthy environments for child development but also public amenity for all residents. If any place is safe, healthy and livable for children they can be considered as livable for others. Dutch *Woonerf*, where streets are designed to limit the dominance of traffic and enable play and pedestrian access is the notable example for livable streets. As Appleyard (1981) points out, path direction, vertical features, surface changes, planting, and street furniture are all designed as obstacles to vehicular travel and to create a residential atmosphere.

According to Appleyard (1981), accessibility is provided in the *woonerf* with five basic traffic managements. First, people may walk anywhere and children may play anywhere within a *woonerf*. Second, cars are driven at a walking pace, as are mopeds and cycles. Third, anyone who drives a car or rides a bike or moped within a *woonerf* must not impede pedestrians, but pedestrians and children at play should not obstruct or unnecessarily impede drivers. Fourth, parking is forbidden except where 'P' is painted on the street. Fifth, within a *woonerf*, traffic from the right always has priority.

As stated by Car et.al. (1992), several features such as planters, landscaping and design devices added to the street to make it different from traditional streets and also help explain its social success. Some design devices are used effectively to inform a newcomer that he/she is entering a different kind of neighborhood. A sign with the universal *woonerf* symbol greets newcomers at the entrance and abrupt change in paving informs them that this is not a typical street. The street becomes a paved and landscaped area where pedestrians and children can move freely. The use of such kinds of features and devices provide physical, visual and symbolic access to the residential streets and children can feel free to enter and play.

Abu-Ghazzer (1998) stated the results of Eubank-Ahrens's (1985) study of two *woonerven*^{*}, which reveals that adapting streets, particularly those streets designed to serve through-traffic, not only encouraged unsupervised children to play longer but also allowed play to become more complex, also as the number of children on the street increased, the amount of purely verbal communication also rose dramatically. The *woonerf* design concept has also provided the essential element of street life that Jane Jacobs (1961) advocated (i.e., added opportunities for children to be in contact with the adult world). Furthermore, the generous physical and social amenities in *woonerven* that resulted from the new design of the street domain encouraged small children to explore the environment at large (Abu-Ghazzer 1998). As stated by Appleyard (1981), today *woonerven* are part of the neighborhood landscape in most of Dutch towns and cities. Dutch government's attempt to provide specific legislation and design guidelines for *woonerven* in 1976 resulted with the interest in increasing pedestrian accessibility to residential streets and spread to many other countries.

* plural form of 'woonerf'

IV.3.1.2 Germany

As Heseltine and Holborn (1987) stated, some legal authority is required to help the development of living streets. Germany can be given as an example where there is a legislative framework as:

“children and pedestrians must be able to use the whole width of the street,
vehicles have to move at walking pace,
children and pedestrians have the right of way (although vehicles must not be obstructed unnecessarily),
parking is restricted to allocated areas” (Heseltine and Holborn, 1987; 75).

At the entrance of such a residential street, some design elements (planting, corner humps, changes in road texture, play area, etc.) remind the driver that in this residential street the pedestrians and children have priority. As stated by Canadian planner Kris Jacobson (2003; “Traffic Calming”) Dutch, a *woonerf*, meaning ‘a living yard’ spread to Germany, where it was called ‘traffic tranquilization’, and imported as ‘traffic calming’ to America.

As stated by Tranter and Doyle (1996), Munich has a reputation for being a ‘playful city’. since 1970s, the combined efforts of play organisations and city authorities has led to Munich evolving as a playful city. “The key aspect of the approach taken is the realization that children need time and space for open, non structured play, and that such play is a crucial part of a child’s development (Zacharias and Zacharias, 1993; cited in Tranter and Doyle, 1996).

IV.3.1.3 Denmark

As explained before, in different periods, several approaches were developed in different countries, to provide children with outdoor play environments. Ledermann and Trachsel (1959) state that Copenhagen was faced with the problem of meeting the demand for children’s play spaces. Thus, the municipal administration in 1939 enacted a by-law requiring that play spaces should be provided by combining and clearing back yards. The financing and maintenance of the playgrounds are undertaken by the building owners. The municipal gardens department is responsible for planning and providing play equipment.

“In densely populated districts one possibility of creating playgrounds besides backyards and throwing them into one, is the provision of play streets. Originally started as an experiment in Copenhagen a number of short streets were transformed into play streets on account of the general traffic situation. As they are predominantly used for the street games there is no need to stress the importance of equipment. Special care was given, however, to the ends of the streets in order to prevent children from running into traffic when playing certain action games. The provision of play streets has been made legal by the Danish traffic law of 1955” (Ledermann and Trachsel, 1959; 46).



Figure 4.12 Copenhagen: cars and children share space
Source: www.whitbybird.com/press/papers/homeZones_observed.pdf



Figure 4.13 Kartoffel Raekerne, Copenhagen: Shared street
Source: www.whitbybird.com/press/papers/homeZones_observed.pdf

As stated by Tranter and Doyle (1996), in Denmark, the importance of such streets for children’s play is clearly indicated in the name given to the streets: ‘Rest and Play’ streets. The Dutch, German and Danish experience has shown that the residential street can be converted to a place for child’s free play. The results of observational analysis of ‘woonerf’

in Delft in Netherlands revealed that “children’s play spreads out more over the entire outdoor space, and includes more place oriented activities such as sitting, watching or playing with materials rather than mobile ‘passing through’ activities (Appleyard, 1981; 307).

IV.3.1.4 England

Another county, which is sensitive for the child’s outdoor play and the contribution of immediate outdoor environment to child’s development, is England. In England, both National Council for Children’s Play and Department for Transportation Projects are interested in raising some standards for the residential street to make it child friendly to make local neighborhoods more livable.

National Children’s Bureau states that;

“It is easy to think that busy, dangerous, car filled streets are an inevitable side-effect of modern life. But it need not be this way. With a little imagination, a small shift in resources and a straightforward change in the law, many residential streets could be transformed from car corridors to valued outdoor spaces: spaces where cars travel slowly and safely, where people can walk, cycle or simply sit and chat, and where it is safe for children to play and get around on their own. This new style of street, ‘the home zone’, could reclaim residential streets for the people who live in them” (National Children’s Bureau - Children’s Play Council, 2003; “Home Zones in the UK”).

A home zone is defined by National Children’s Bureau (2003) in England as “a street or group of streets designed primarily to meet the interests of pedestrians and cyclists rather than motorists, opening up the street for social use”.

“Home Zones are residential streets in which the road space is shared between drivers of motor vehicles and other road users, with the wider needs of residents (including people who walk and cycle, and children) in mind. The aim is to change the way that streets are used and to improve the quality of life in residential streets by making them for people, not just for traffic. Changes to the layout of the street should emphasise this change of use, so that motorists perceive that they should give informal priority to other road users” (Home Zones Challenge, 2003; “Department for Transport Initiative Project”).

The recent introduction of Home Zones in England is one attempt to make local neighborhoods safer places for children. A Home Zone is a residential street where

landscaping, the road layout and traffic calming measures give priority to pedestrians over cars. A home zone can turn streets into valued public spaces, which are safer for everyone, especially for the child's activities. Home zones can provide a safer place for children to play near their homes, and are safer places for other residents. It is likely that home zones, as in other European countries, will create stronger communities by getting more people out in the street.

The key benefits of Home Zones are stated by Home Zones Challenge-Department for Transport Initiative Project (2003) as; home zones turn the residential street into valued public space, and not just a place for movement; foster a sense of community; encourage a greater diversity of activity and use of the street by residents; reduce social isolation, particularly amongst the elderly; increase opportunities for active and creative children's play; reduce traffic speeds significantly; improve (or at least maintain) the safety of residential areas, and perhaps more importantly, residents' perceptions of safety; enable less mobile members of the community-children, older people and disabled people-to reclaim their local environment from the car; encourage people to walk and cycle within their local area, and nearby destinations; improve the environmental quality of urban streets; help to increase the demand for urban living".

In order to evaluate the contribution of such kinds of approaches to the community life, the following pilot projects from United Kingdom may be useful. Below pilot projects are designed on home zone principles, including elements such as shared surfaces, measures to achieve very low traffic speeds, road space designed for community use, play equipment, and high quality landscaping.

Children's Play Council (2003; "Home Zones in the UK), gives details of home zone developments throughout the United Kingdom. Some of them are stated below as explained by Children's Play Council (2003), in order to clarify the features and their contributions to resident's social life, as well as children's free movement in their neighborhoods.

Northmoor Homezone, Manchester

Setting: This proposal forms part of a multi-million pound regeneration scheme in the urban district of Northmoor. There are 1400 Victorian houses in long terraces, the Council is proposing to acquire and demolish some houses in the middle of each terrace in order to create green streets through the area, and to build a number of new three storey houses. The project is part of a Single Regeneration Budget (SRB) scheme that was already ongoing prior to the Home Zones Pilot, but the home zones concept was seen as fitting in well with the proposals.

Issues: The area contains a number of through roads and has much on-street parking. The problem of speeding traffic has been answered with ugly road humps. Houses have no front gardens and only small rear yards. Rear alleyways are full of rubbish and attract burglars. There are few recreational facilities for children. Empty properties add to the sense of neglect and crime levels are a real problem.

Features include:

- converting parallel parking to echelon parking,
- installing 20 mph gateways to the area: there are three spine roads in the area which are proposed to be converted to 20mph limits, with the side streets treated for lower design speeds to create an impression that, on leaving the 20mph spine road, you have entered a “home zone”,
- installing attractive finishes to streets: a continuous asphalt type overlay with a pattern printed into it has been used to create a design which marks the entrances to the street and to create small areas that residents without front gardens can call their own,
- including a modern street lighting system,
- planting trees and installing street furniture,
- creation of ‘green streets’ with new three storey properties to be built to overlook these spaces.

Late in 2000, Manchester Methodist Housing Association won the National Housing Award for Best Regeneration Scheme and was also the overall winner for Outstanding Achievement in UK Social Housing. Organized annually by the Chartered Institute of Housing to recognize innovation and excellence in the work of social landlords, Northmoor was selected because of the involvement of so many local people and agencies working in partnership together to turn the area around. Northmoor Urban Art Project won a top best practice award from the British Urban Regeneration Association in October 2001.



Figure 4.14 Northmoor Homezone, Manchester
 A new environment has been created
 Photo by Tanja Jager-Northmoor Urban Art Project
 Source: www.homezonenews.org.uk



Figure 4.15 Northmoor Homezone, Manchester
 Stainer Street, the first to be completed
 Photo by Tanja Jager-Northmoor Urban Art Project
 Source: www.homezonenews.org.uk

West Ealing (Five Roads) Home Zone, Ealing, London

Setting: This proposal covers five residential roads in an inner urban area near West Ealing station: Hastings Road, Hartington Road, Broughton Road, Denmark Road and Arden Road. It covers 370 households, including around 580 adult residents.

Issues: The area is typical of many parts of London, with houses built without provision for parking and straight roads which encourage high speeds. Residents are concerned about the poor environment which is noisy, polluted, unattractive and poorly lit, “at-running”, parking by non-residents, HGV traffic, and dangerous/inconsiderate parking causing obstructions (including for emergency and service vehicles).

Physical features include:

- changed road layout to incorporate 30-degree parking bays, marked on alternating sides to create chicanes which will help slow traffic down,
- six gateway features consisting of a raised table and width restriction to mark the entry to the home zone. In all but two locations these are set back from junctions with surrounding distributor roads, allowing entry to commercial premises on the edge of the area,
- shared surface,
- new street lighting to double the number of street lights in the area,
- 20mph zone,
- controlled parking zone,
- planting areas,
- installation of community mosaics,
- a play area developed in a disused area of a car park, already used informally by children. Residents have applied for grants to provide equipment for the area.

It is worthwhile for residents to begin the process of trying to get a home zone. It helps to rebuild a sense of community in the neighborhood whatever the end result. People begin to know and support each other. Some people begin to think about whether they need to use their cars.

A long consultation period gives the opportunity for people to think about what they really want and accept new ideas. It is useful for the residents to have a mediator from outside their group and it is important to involve the local councilors / other resident's.



Figure: 4.16. West Ealing (Five Roads) Home Zone, Ealing, London
Source: www.homezonenews.org.uk

Castle Vale – Centre 8 Development, Birmingham

Setting: This scheme is the redevelopment of 1960s high rise blocks on a large out-of-centre estate housing families. There are two areas, each comprising 120 dwellings, which have been redeveloped.

Issues: Social problems on the estate included unemployment, vandalism, and car crime.

Features: Each area is laid out with central crossroads, designed on *woonerf* principles with shared surfaces, integral planting and on-highway parking.



Figure 4.17 Castle Vale – Centre 8 Development, Birmingham
Source: www.homezonenews.org.uk



Figure 4.18 Castle Vale – Centre 8 Development, Birmingham
Source: www.homezonenews.org.uk

In these pilot projects, it is clear that Home Zones can create attractive urban environments, foster positive community spirit, and provide safer streets for everyone. Home zones are common and popular in many European countries. “Also, in Austria, home zones legislation was introduced in 1983. In the USA, many cities have suffered from rapid suburban sprawl. Groups such as the ‘Congress for New Urbanism’ are pushing ‘smart growth’, the mixed-use streets as a way to increase densities and achieve more liveable cities” (Children’s Play Council, 2003).

To sum up, it is evident that, the residential street functions in many ways, access to other settings, enhance the environment for the life of residents, establish friendship, provide social interaction between residents and as being informal play space, it competes with formal play spaces. On the other hand, in many countries, due to car dominance and safety concern for children, the residential street have been losing its functions and becoming the transit way only for the cars. So, to prevent the car dominance and open up the street for social use and to reclaim the residential street as a play space, make it safe and healthy public amenity. On the other hand, to reclaim the residential street as a play space and implementation of *Woonerf* or Home Zone design approaches depend on several factors; existing urban pattern, socio-economic structure, population density, societies’ indifference to the importance of outdoor environment for child’s healthy development and the satisfaction of the residents with the provision of sufficient public facilities for children. The following chapter will cover the survey analysis in order to understand this issue.

As explained previously, according to researchers, such as Francis (1987), and Abu-Ghazze (1998), design and planning innovations from Europe are viewed as inspiration for effective way of reducing traffic speed and provision of social activities in neighborhood space. After 1960s, *Woonerf* principles started to be applied in many European countries. They are still considered as solutions to bring the public life to residential streets. On the other hand, urban development in the twenty-first century is critical for application of such principles in most of high density, industrialized countries. So, a question arises; what kind of approaches can be considered as permanent solutions for the needs and rights of children in rapidly changing urbanism today?

Thus, in this study, survey analyses are conducted in Yukarı Ayrancı, Ankara, Turkey and Brooklyn, New York, USA; both of which are dense and suffering from car dominance in residential areas. The main purpose is to understand about children’s outdoor play habits in

these selected districts. And then, what kinds of spaces are preferred as play spaces by those children will be clarified. Due to the car dominance and parental concerns, accessibility and safety in the residential area will be taken as keys throughout the surveys analyses. Then, necessities for application of those European Movements will be investigated and how those movements can contribute to the needs and rights of those children will be explored.

CHAPTER V

FIELD SURVEY: ANALYSES OF THE TYPES & COMPONENTS OF PLAY SPACES IN SELECTED SITES

V.1 Scope of the Survey

In this study, the major aim is to outline the needs and preferences of children for the outdoor play spaces, depending on their rights in the public spaces. As explained throughout the study, today's children's outdoor play opportunities are restricted and they are dependent to indoor oriented facilities because of the aforementioned reasons. Thus, this thesis mainly argues the problems of inefficient play spaces and lack of freedom of action, especially for the school age child, in the immediate environment, which is the neighborhood. In this context, it is important to understand what kind of outdoor environment contributes to the needs and answers the rights of children. So, the scope of the survey depends on the comparison between traditional playgrounds and the residential street, which is the most attractive but the most critical informal play space for school age children. In searching the role of residential streets for children's play activities, the major concern is about child safety.

After analyzing the theoretical framework about the importance of 'play' for the developmental needs of children and understanding the functions of both traditional playgrounds and residential streets, examining the real world examples are important tools to make evaluations about:

- Child's satisfaction with the provision of outdoor play facilities in their neighborhoods,
- Child's preference for the types of play spaces,
- The lack of design and design elements in traditional playgrounds,

- Function of the residential street as a play space,
- The possibility of reclaiming the residential street not only as a safe play space but also, as social and educational space.

V.2 Context of the Survey

In order to make above evaluations, different sites were selected in the same type residential areas in different countries; Ankara, Turkey and New York City, USA. As explained in section IV.3.1, design and planning innovations from European countries, such as Netherlands, England, Denmark and Germany, put great value to the child's outdoor safety, and their rights to play in their immediate environments. And they are viewed as inspiration by other countries.

On the other hand, "the legal definition of childhood varies from one place to another, and according to the kind of right or obligation we are discussing. In Britain, a whole series of laws, or rather a random accumulation of laws, grants rights or imposes duties at different ages, which in general define the status of childhood" (Ward, 1978; vi). The kinds of rights given to child vary depending on the urban structure, public awareness, socio-economical structure of societies and family's income levels. Today's indoor oriented children's right to be able to participate in the outdoor environment by themselves, especially for playing, depends on the adult decision; designer's approach or parental concerns. Thus, in order to evaluate the rights of children in the outdoor environment and their rights to have safe and healthy outdoor play spaces in different countries, a comparative analysis was made in this study.

In order to understand the availability or absence of outdoor play opportunities in densely populated countries, one developed and one developing country were chosen. The selected sites in both countries have some similar characteristics, due to family's cosmopolitan social and economical structures, dense population and urban structure. The aim was to understand the outdoor play habits and outdoor play opportunities of children from different income levels in different countries.

This study's approach is based on the assumption that today's children are not satisfied with the public provision of play facilities in their neighborhoods and 'play' to them means more

than developing their physical skills. Depending on this idea, the contribution of immediate outdoor environment to their physical, perceptual, emotional, social and intellectual developments was analyzed. While doing this, the focus was given to the comparison between existing formal play spaces and informal play spaces.

Since the accessibility is a major concern, the aim was to understand the possibility of application of approaches from European countries, which reclaim the residential street as more livable and safer for child's play.

V.3 Method of the Survey

There are several research methods in environmental design, which help to alleviate some of overwhelming problems and bring into focus the kinds of needed, especially for special groups with special needs, such as the children in the urban environment. In this study, three types of *Environmental and Behavioral Research Methods* are used for data gathering;

- Non reactive observational method that is called as *unobtrusive method* in the literature,
- Interviews with parents and their children,
- A combined interview-observation format is used in the selected site, and the child is asked to take the investigator along to all places that are used as play spaces.

In order to find how well the environment fits to behavior and action, there are two ways of observing that fit (Whyte, 1980 and Lynch, 1987). The first method is to watch people acting in an urban space, in order to see how well overt actions match the characteristics of an urban space. And can people easily carry out the activities? To make observations on people is crucial, if the observed people are made aware of the observation, they may change their behavior or may become disturbed, and it causes a bias in the respondent's attitudes. Especially the children do not like to be observed. In order to cope with this problem, a kind of non reactive method should be used. "This method is called in the literature as unobtrusive technique and it was developed by Webb, Campbell, Schwartz, and Sechrest in 1996 in their book namely *Unobtrusive Measures: Nonreactive Research in the Social Sciences*. Unobtrusive measures are widely used techniques in social sciences and human behavior studies" (Ünlü, 1996; 120).

According to Baker (1988), unobtrusive measures avoid errors generated by both the subject beings and by the researcher interacting with the subjects. On the other hand, while providing advantages, unobtrusive technique, or one may say non reactive observation method have some disadvantages. As Baker (1988) stated, in social science researches there are problems of;

- Gaining cooperation of respondents,
- Keeping them committed to completing questionnaires and interviews,

Bechtel, Marans and Michelson (1987) state that the observer who is performing the task becomes an obtrusive presence and defines a wide choice of approaches to making observations; the naive observer, participant observation, the hidden observer and the professional observer.

In this study, since children's play activities are extraordinary for adult observer and since those activities are difficult to define and explain by making assumptions, *a naive observer method* was applied while watching children's play activities. "A naive observer stance is especially effective in observing children, the elderly, or the handicapped because these groups offer a rich field of discovery for the uninitiated" (Bechtel, Marans, Michelson, 1987; 17).

The second method is to ask the users themselves, whose sense of the appropriateness of a place is the final measure of its fit. But in this study, this method has some difficulties, because to interview school age children (aged 6 to11) and to have consistent answers may be difficult. Thus, in addition to interviews used with parents and their children, as a third method a combined interview-observation format was used in selected sites and children were asked to take the investigator along to all places that are used as play spaces. While doing this, play spaces in children's immediate outdoor environment were focused.

Because of children's limited time for playing in the outdoor space and difficulties of making observations in scattered formal and informal play spaces in the residential areas, a *quota sampling method* was used and children were randomly selected.

Before making a decision about the certain formal and informal play spaces to be observed, initially, a general observation was made on several playgrounds in the selected sites. Such observation gave clues about the children's accessibility in the outdoor environment by

themselves. Also, in order to understand what kind of outdoor places are mostly used by children as play spaces, children's daily activities in their immediate outdoor environments were observed.

Since children's outdoor activities increase or decrease depending on seasonal conditions, most of the observation was made especially during spring and summer time throughout one year. Also, their outdoor activities in autumn and winter time were observed during the study period in order to have varied information about the child's outdoor play habits in different conditions.

V.4 Survey Analysis in Yukarı Ayrancı, Ankara, Turkey

The results of survey analysis conducted by Ünlü in 1996 in Yenimahalle and Batıkent, which are located in different districts in Ankara, Turkey, reveal that the principal users of the streets are children. They comprise an important part of the daytime population of the housing area and use the street as a playground, and are mostly found in front of their houses.

This survey analysis conducted in another district in Ankara, Turkey reveals that this continues to be the case in most of residential areas, except from the residential areas in which only high income families live, who can afford to provide their children with after school activities. In order to make a general evaluation about children's outdoor play experiences, needs and preferences, Yukarı Ayrancı was selected for this study, which consists of residents from different income levels and social status.

The survey analysis was conducted in the sites in Yukarı Ayrancı, which is surrounded by Ömür Road, Dikmen Street, Selimiye Street and Hoşdere Street. Within this area, three playgrounds were selected to be analysed because of their locations in the neighborhood, which is important in terms of safe accessibility; Selimiye Playground, Gökdere Playground and Cemal Süreyya Playground are located in densely populated district in Ankara and they serve as traditional playgrounds.

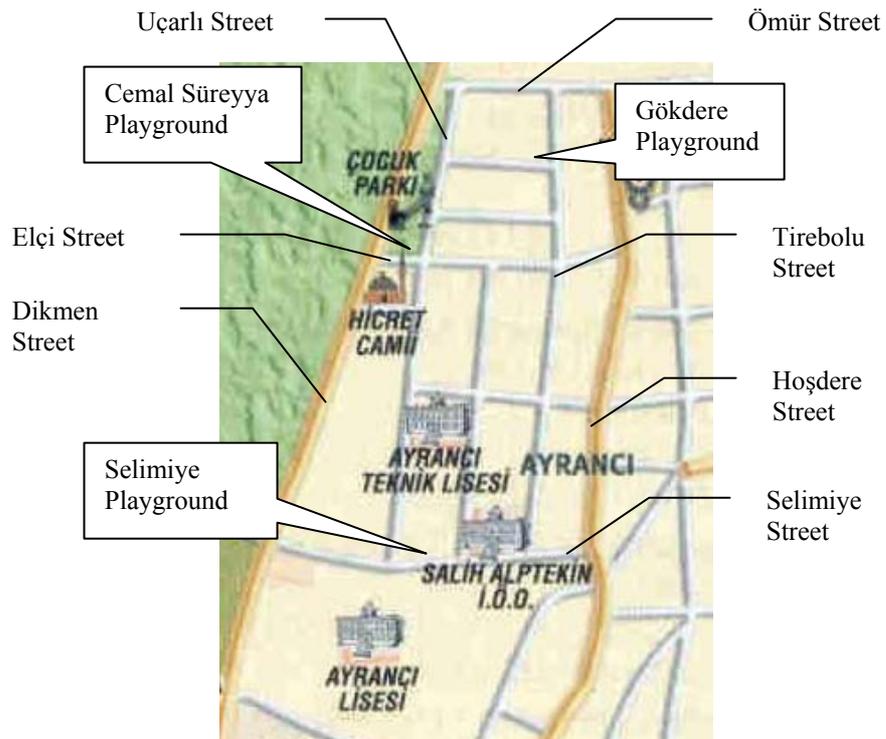


Figure 5.1 Location of the analyzed playgrounds in Yukarı Ayrancı
Source: Personal archive

The primary goal was to understand whether these playgrounds meet the developmental needs of school age children and what kind of play space do those children prefer. Thus, observations were made on these playgrounds and on various informal play spaces in the children's immediate outdoor environments both on weekdays and weekends. The aim was to understand the age group of children in these playgrounds and in the informal play spaces. While analyzing the play spaces and children's activities in these spaces, safety, accessibility, proximity to home and active engagement of users were decided as keys to the observation.

Also, other groups of users were observed in order to evaluate their satisfaction on these public spaces, because of the function of these playgrounds both as play spaces and as public spaces. The major question is; do these playgrounds answer the needs and rights of children and other users.

After analyzing the user groups of these three playgrounds and making evaluations about the satisfaction of the users, the aim of the survey was to make comparison between these playgrounds, which are formal play spaces for children, and other play spaces, which are informal, especially the residential street.

V.4.1 Selimiye Playground, Yukarı Ayrancı

Physical Layout: This playground is surrounded by streets from its three sides; Selimiye Street, which carries heavy traffic load; Uçarlı Street and Güteryüz Street which carry generally the local traffic load. Selimiye Playground is segregated from the adjacent area by fences. The playground consists of three parts; area for traditional types of play equipment with only swings and slide, a small area for multifunctional play structures, and area for relaxation with a few benches and an ornament pool. There is no space for walking, riding a bicycle or group games.

The combination of slides, monkey bars and swings look like a simple form of contemporary type playgrounds. They are stable and settled on a pebble ground, which can cause injury if the child falls.



Figure 5.2 Entrance to Selimiye Playground
“Car parking occupancy at the entrance of a playground”
Source: Personal archive



Figure 5.3 Traditional types of play equipment in Selimiye Playground
Source: Personal archive

User Groups and Main Activities in Selimiye Playground

The results of the naive observer method revealed that the most common user group is ‘younger’ children and adults, who supervise. The play equipment, such as swings, slide, monkey bars are used by the ‘younger’ children. Their active engagement in the playground was observed both on weekdays and weekends under adult supervision.

School age children were observed in Selimiye Playground especially on the weekdays. Most of them spend their time in this park after school hours; they are from the primary school, which is next to this playground. The other user group is ‘adolescents’ who are from the high school, which is near to this playground. Also, elderly people were rarely observed especially on the weekdays.

Older children (school age children and adolescents) come to this playground after school hour and spend time with their peers; chatting and meeting with others, and relaxing is the most common activity.

On weekdays and weekends, older children were observed playing street games, riding bicycles or talking to each other on the adjacent street (Gülyüz Street) to this playground. In comparison to younger children, their activities are carried out in groups, at least 3 or 4 children. Another site, which is suitable for their group games, is the school yard next to the playground. Rather than playing with the traditional type play equipment in Selimiye

Playground, most of older children prefer to establish their own free play in the school yard, especially on the weekends.



Figure 5.4 School Yard next to Selimiye Playground
“School yard as a play space: most of school age children play here”
Source: Personal archive

Evaluation of the Observations in and around Selimiye Playground

The results of naive observation method revealed that the physical layout of Selimiye Playground is not suitable for the freedom of action, due to the lack of space to carry out group plays. Also, the play equipment is not suitable for the physical stimulation of ‘older’ children; they are all similar and non portable. The lack of diversity and complexity in the physical layout and elements of the site do not stimulate the child physically, perceptually, emotionally or socially. There is nothing to explore for the ‘school age’ child, thus the physical elements and play equipment in this playground do not contribute to the creative and educational development of these children. Most of the time, the child prefers to play on Güteryüz Street, which is a one way street and carries less traffic load.

The results of the naive observer method revealed that Selimiye Playground can answer the needs of ‘younger’ children, who need adult supervision while playing. The physical layout and an arrangement of landscape elements answer the comfort, relaxation and passive engagement needs of adults. And the easy access to the site makes adults have a sense of suitable play space for their children. On the other hand, interviews with school age children revealed that this playground does not create a sense of place as a play space for them and

they prefer to play in the informal play spaces; such as streets, sidewalks, front yards and the school yard which is next to this playground. Due to their parent's concern for their safety, they are not allowed to go far away.

The results of interviews with parents and school age children revealed that they are not satisfied with the provision of play facilities in their neighborhood. Families from high or middle income levels prefer their children to spend their time in after school centers or they want their children to be under their visual control while playing outside. On the other hand, children of lower income families spend their time mostly with outdoor play facilities. Whether lower, middle or high income level, parents are concerned for their children safety, due to the speed of cars in the residential area.

A combined interview-observation format was used, and the child was asked to take the investigator along to all places that are used as play spaces, the results revealed that side walks, residential street in front of houses, front yards, back yards, and the school yard are used mostly in that given order. Their preference for such types of informal play spaces reveals that, proximity to home is important factor for children while establishing their informal play spaces. Also, such kinds of play spaces allow them to play in groups, to meet with others, and to establish social interaction with residents.

The results of interviews used with parents revealed that they do not evaluate the residential street in terms of its contribution to the child's social and educational development and play opportunities. On the other hand, they have serious concern for their child's mobility while going to schools or playgrounds by themselves or while playing on the streets. Thus, accessibility to existing play spaces and safe mobility in the residential area can be considered as problems for residents.

V.4.2 Gökdere Playground, Yukarı Ayrancı

Physical Layout: This playground is surrounded by streets from its two sides; Tirebolu and Gökdere Street, which carry generally the local traffic. It is a small playground consisting of a traditional playground and hard surfaced area for ball playing. It is fenced and totally segregated from the adjacent area. Until recently this park was a typical traditional playground with swings, slides and seesaw. Later, seesaw and slide were replaced by a

combination of slides. All play equipment is stable and settled on a pebble ground, which can cause injury if the child falls.



Figure 5.5 Combination of traditional type of play equipment in Gökdere Playground
“Swings and slides are used by ‘younger’ children”
Source: Personal archive



Figure 5.6 Entrance to Gökdere Playground
“Fences as barrier to separate the play activity from the adjacent streets”
Source: Personal archive

User Groups and Main Activities in Gökdere Playground

The results of the naive observer method revealed that the most common user group is ‘adolescent’ approximately 13 to 17 years old, since the physical layout of this site allow these children to carry out sport activities, such as basketball and football. Their active engagement in this playground was observed both on weekdays and weekends. The other

user group in Gökdere Playground is adults, especially the one who pet animals. In the afternoons of weekdays and weekends, they come to this playground to spend time, to relax and to meet their friends.

The play equipment, such as swings and slides are used mostly by ‘younger’ children. Their active engagement both on weekdays and weekends under adult supervision was observed. ‘Older’ children come to this playground after school hours and meet their peers. Their activities extend out the playground; it may be because of adult and adolescent users in the playground, who restrict their freedom of action while playing. ‘Older’ children prefer to play on the adjacent street and sidewalks there.

On weekends, ‘older’ children were observed playing street games, riding bicycles or talking to each other on the adjacent street (Gökdere and Tirebolu Street) to this playground. In comparison to younger children, their activities are carried out in groups.



Figure 5.7 Children’s activities on Tirebolu Street
“Physical elements on the sidewalk can be components of play activities”
Source: Personal archive



Figure 5.8 Children's activities on Tirebolu Street
"Sidewalk as a meeting place for children"
Source: Personal archive



Figure 5.9 Children's activities on Tirebolu Street
"Street play in winter"
Source: Personal archive



Figure 5.10 Children's activities on Tirebolu Street
"Streets and sidewalks are popular play spaces in winter"
Source: Personal archive

Evaluation of the Observations in and around Gökdere Playground

The results of naive observation method revealed that the physical layout of Gökdere Playground is suitable for group games, which are mostly preferred by ‘older’ children. On the other hand, the ‘control’ and ‘ownership’ of other users, such as ‘adolescents’ and adults who pet their animals, do not allow for active engagement of others.

Although the physical layout of Gökdere Playground is suitable for freedom of action, ‘older’ children do not feel free to play in this playground, because of other’s claim on the playground. Rather than being a playground for children, it seems to be a meeting place for adults and adolescents.

During the observation period, this playground was renovated, and it became clear that any vacant lot can be more attractive than equipped playground. When this playground was under renovation and without any play equipment, most of ‘older’ children came to park to play freely. On the other hand, after new play equipment were installed, not many children were observed there. It seems that, what attracts the child is the opportunity to play freely, to discover and to challenge. A piece of play equipment is not sufficient to make a ‘sense of place’ for a child.



Figure 5.11 Gökdere Playground (under renovation)
“Child creative play was allowed without play equipment”
Source: Personal archive



Figure 5.12 Gökdere Playground (before the installation of new play equipment)
“When the playground was without play equipment, it was suitable for group games”
Source: Personal archive

As it was before the renovation of play equipment, new play equipment does not contribute much to the physical development and creativity of ‘older’ children. After renovation, the most common users of new play equipment are the ‘younger’ children with their supervising adults.

Such a renovation one more clarified that, developmental needs of the child are not considered while designing any play space and play equipment. A piece of non portable play equipment does not allow child’s creativity. And the repetition of the same activity does not contribute to the child’s physical, perceptual, emotional and social development.

As being a public space, Gökdere Playground can answer the needs of ‘younger’ children, ‘adolescents’ and also of other residents. These groups actively and passively engage in the site. On the other hand, ‘older’ children do not feel comfortable while playing there. They are observed mostly while playing on the streets, sidewalks and front yards.

The results of interviews with parents and children reveal that they are not satisfied with the provision of play facilities in their neighborhood. Also, parents stated their concern for their children’s safety outdoor. Parents, who can not provide after school facilities for their children, have more concern for their children’s safety while playing outdoors, especially due to speed of cars.

Also results of interviews used with children reveal that they need large areas for their group plays, for riding a bicycle and for street games. The lack of sufficient play space makes children to establish their own informal play spaces.

A combined interview-observation format that was applied on the school age children revealed that ‘older’ children prefer to play on the sidewalks and streets near to Gökdere Playground. It may be due to their need for social interaction with older ones and the possibility of meeting others. In addition to their needs for social interaction with others, proximity to home is important factor while establishing their informal play spaces. That is why, most of children living on Tirebolu Street were observed while playing on the sidewalks or front yards in front of their homes. Also, their preference to play in the turf area of this playground is obvious; they like to play in areas with trees, shrubs and diversity of other landscape elements.

The results of interviews with parents revealed that they have serious concern for their child’s mobility while going to schools by themselves or playing outdoors. Most of high and middle income families state that they provide school bus for their children. On the other hand, children from lower income families go to school by themselves. Thus, accessibility to existing play spaces and safe mobility in the residential area can be considered as problems for residents. And, like the survey analysis conducted in and around Selimiye Playground, the residential street was evaluated only in terms of its function for carrying motor vehicle. Its contribution to the children’s developmental needs and to social interaction were not evaluated by parents.

V.4.3 Cemal Süreyya Playground, Yukarı Ayrancı

Physical Layout: This playground is surrounded by streets from its four sides; Ömür, Dikmen and Elçi Streets, which carry heavy traffic load, and Uçarlı Street, which carries less traffic load because of being a one way street. Cemal Süreyya Playground consists of four parts; a combination of traditional playground with contemporary types of play structures, hard surfaced area for ball games, relaxation area with an ornament pool, and landscaped public park. The overall site is segregated from the adjacent area by low parapets.

There are swings, slides, and combination of several play equipment in the playground. They are all stable and settled on a pebble ground, which can cause injury if the child falls.



Figure 5.13 Cemal Süreyya Playground
“Combination of traditional type and multifunctional play equipment”
Source: Personal archive



Figure 5.14 Entrance to Cemal Süreyya Playground
“Car park occupancy”
Source: Personal archive

User Groups and Main Activities in Cemal Süreyya Playground

The results of the naive observer method revealed that the most common user groups in Cemal Süreyya Playground are toddlers and ‘younger’ children with their parents; adolescents, who play ball games; and adults, who pet animals or relaxing in the public park.

Traditional playground is usually used by toddlers and younger children both on weekdays and weekends. Combination of multifunctional play structures are used by older children for climbing or for other physical activities. Especially on the weekends, older children are observed while playing, meeting, and chatting in this playground.

On the other hand, while playing in groups and creating their own play activities, their mobility exceeds the borders of the playground. Especially the adjacent street and sidewalks become their play spaces.



Figure 5.15 Site for ball games in Cemal Süreyya Playground
“Suitable area for free play of ‘older’ children, but mostly used by adolescents”
Source: Personal archive



Figure 5.16 Public Park in Cemal Süreyya Playground
“Adults meet here and pet animals”
Source: Personal archive



Figure 5.17 Adjacent sidewalk to Cemal Süreyya Playground
“Children can create their own play equipment”
Source: Personal archive



Figure 5.18 Sidewalk as a play space on Uçarlı Street
“Group game exceeds the borders of playground”
Source: Personal archive



Figure 5.19 Front yards as play spaces on Uçarlı Street
“Proximity to home is important for child’s outdoor play”
Source: Personal archive



Figure 5.20 Children's activities on Uçarlı Street
"Group games are played on the streets"
Source: Personal archive



Figure 5.21 Front yard as a play space
"Large front yards are suitable for group games"
Source: Personal archive

Evaluation of the Observations in and around Cemal Süreyya Playground

The results of the naive observer method revealed that the physical layout and design elements in the site allow different groups of users with both active and passive engagement.

The most common user group is 'younger' children and adults with them. Play equipment is used by this group, also 'older' children can play in groups with the combination of play structures. The types and combination of play equipment allow the child to experience several physical activities, but they are all non portable and do not contribute to child's creativity. Also, child's injuries are observed because of the hard pebble ground.

In general, both on weekdays and weekends, different age groups of users were observed. Thus, this playground can be considered as efficient for the social interaction of several groups and can contribute to the social and educational development of the child. The arrangement of landscape elements and other site furniture meet the comfort, relaxation, active and passive engagement needs of adults and older children.

Both on weekdays and weekends, ‘adolescents’ were observed while playing ball games. Their ‘control’ and ‘ownership’ on the site for ball games were observed. ‘Older’ children do not feel free to play there, although the physical layout of this site allows children to carry out free play, to play in groups, even to ride bicycles. The adjacent street (Uçarlı Street) to this playground is used by children for such activities. The results of the naive observer method revealed that children’s activities go beyond the borders of the existing play space.

The results of interviews used with parents revealed that Cemal Süreyya Playground is efficient and safe for the play activities of children. On the other hand, parents have serious concern about the street, which is adjacent to this playground. Because of the speed of cars on this street, parents do not allow their children to go there alone, but allow them to play on the sidewalks or front yards in front of their houses. However, the results of interviews with the ‘school age children’ revealed that they prefer to go there by themselves and they do not like adult supervision.

When a combined interview-observation format was applied on the children, Uçarlı Street, sidewalks there and front yards were defined as their favorite play spaces in that given order. It makes clear that the child prefers to play where the action. Also, proximity to home is important factor for children while establishing their informal play spaces; front yards which are not used as parking spaces are the most popular informal play spaces. If the front yards are used as parking spaces or landscape gardens, sidewalks and the streets in front of houses are the popular informal play spaces.

The results of interviews with parents revealed that they have concern for their child’s mobility while going to schools by themselves or playing outdoors. Both high, middle and lower income families stated their concerns about their child’s safety outdoor, but the most common user group in the informal play spaces can be defined as from lower income family’s children. Parents stated that they would prefer their children to play near their homes, especially in the front yards. They did not evaluate the residential street in terms of

its contribution to child's social interaction and play opportunities. Like survey analyses conducted in and around Selimiye Playground and Gökdere Playground, accessibility to existing play spaces, lack of efficient formal play spaces for 'older' children's needs and concern for the child's safe mobility in the immediate outdoor environment can be considered as problems for residents.

V.4.4 Evaluation of the Survey Analyses in Yukarı Ayrancı, Ankara, Turkey

In this study, the aim of the survey analysis was to observe the activities of children in their immediate outdoor environments and special attention was given to the 'school age' children. After making observation on the general site, the most commonly used places for these children's play activities are defined. The focus was given to three traditional playgrounds and their surroundings in order to compare the function of these playgrounds with informal play spaces. The results of observations revealed that most of the play activities are carried out in informal play spaces, which are either near to children's home or adjacent to the playgrounds; such as residential streets and sidewalks.

The results of naive observation method, interviews with parents and their children, and a combined interview-observation format revealed that both children and their parents and also other residents are not satisfied with the public provision of play facility. Also, parents are not willing to allow their children to go to existing playgrounds due to their concern for child safety. High and middle class families try to meet their children's needs by providing after school centers, sport facilities or provide them with indoor oriented facilities, such as computer games or pay for play centers.

On the other hand, lower income class cannot respond to the needs of their children with such facilities. So, in comparison to the children of lower income class, the other group of children can be considered as more indoor oriented. The results of observations, conducted during the weekdays revealed that children who play in the outdoor are mostly from the lower income families. The other groups of children were observed in the playgrounds only on weekends under adult supervision. What is common for their play activities is that, they all prefer to play in informal play spaces and they like to play street games.

Due to the inefficient provision of play facilities and the lack of play spaces to meet their developmental needs, they establish their own informal play spaces, but they cannot provide themselves with safe and healthy outdoor play spaces. Since they are all children and they all have the same right's to have safe and healthy play spaces, which are efficient to meet their needs, they should be all provided with public facilities with equal opportunities.

The results of observations and interviews with both parents and children revealed that 'physical accessibility' is important factor that influence the preference for a play space. Another study conducted in several playgrounds in Ankara by Tekkaya (2001), revealed that traffic density is an important factor that affects one's attachment to outdoor play spaces. So, depending on the results of research methods applied to Yukarı Ayrancı, especially regarding the needs and preferences of children aged 6 to 11, it is possible to define the components of stimulating and contributory outdoor play spaces. Their need for easily accessible, large open areas with diversity of physical elements; site for free plays and bicycling, complex and portable play equipment to develop their creativity, diversity of landscape elements and opportunity for social integration should be considered. This survey analysis confirmed that, in order to provide children with such efficient play spaces in safe and healthy neighborhoods, some regulations are required;

- For the continuity of play in the neighborhoods, playgrounds should not be considered as totally segregated places from the adjacent area; not only the playgrounds but also their surroundings should be safe and accessible; such as the street adjacent to the playground should be even safer than the playground,
- The speed of cars in the residential street should be reduced by using signals that indicate the child's activity in the street, and also design elements such as pavement differentiation and landscape arrangements are required ,
- At the intersection of residential streets, there should be arrangements for the safe cross of pedestrians,
- If possible, residential streets, which are most heavily used by children, should be closed to the car access; they should be arranged to meet the physical needs of children, to provide free and creative play opportunities, while providing social interaction between different age groups, (see 'woonerf' features in section IV.3.1.)
- The physical layout and design elements in the existing playgrounds should be re arranged in order to provide play opportunities suitable for the needs of several age

groups; Social integration is important for children's social and intellectual development. So, the play space should allow the active engagements of several age groups.

As explained in the previous chapter, there are successful examples of such environments that give priority to pedestrian movement and especially the child's play activities. In such environments children and other residents can feel the sense of a place and ownership. Also, it encourages social integration and prevents the child's alienation in the outdoor environment. Because of the implementation and maintenance cost and lack of public awareness, it can be difficult to apply such kinds of principles in developing countries. On the other hand, in order to grow children as healthy adults, public authority, planners, architects, and even the residents in the neighborhood should reconsider the advantages of providing such a livable environment.

V.5 Survey Analysis in Brooklyn, New York, USA

Like the survey analysis conducted in Yukarı Ayrancı, Ankara, Turkey, this survey analysis' approach is based on the assumption that today's children are not satisfied with the public provision of play facilities in their neighborhoods and outdoor 'play' means more than developing physical skills. In order to evaluate the contribution of immediate environment (neighborhood) to the child development, the focus is given to the comparison between existing play spaces and informal play spaces. On the other hand, the first impressions while making 'naive observations' revealed that the child has no opportunity to establish informal play spaces in the selected sites of Brooklyn. Thus, observations were made on playgrounds and later interviews were made with adults and children in order to understand the contribution of these play spaces to their physical, perceptual, emotional, social and intellectual developments.

Observations were made on three different playgrounds and the adjacent environment both on weekdays and weekends. The aim was to understand the age group of children in these playgrounds. Also, other groups of users were observed in order to make evaluations about the satisfaction of users on these public spaces. Because of the function of these playgrounds both as a play space for children and as a public space for adults, the major question is; do these playgrounds answer the needs and rights of children and of other users. These playgrounds are typical American playgrounds, which match the below definition;

“American playgrounds typically consist of large open spaces for team games and smaller areas of play equipment intended for younger children. Equipment such as swings, slides, climbing structures, seesaws, and whirling toys continues to dominate most U.S. playgrounds. In the past several decades, technological innovations have changed the structure and appearance of some equipment (for instance, high-impact plastics and powder-coated paints are common today), and playground superstructures have combined many play elements into one continuous piece of equipment, but the essential form the playground remains the same” (Crowder, 2003, “Types of Children’s Landscapes; Playgrounds”).

Volunteer Playground, Russell Pederson Playground and Dyker Beach Playground were selected to be analyzed because of their locations in the neighborhood, which is important in terms of accessibility in such a densely populated district.

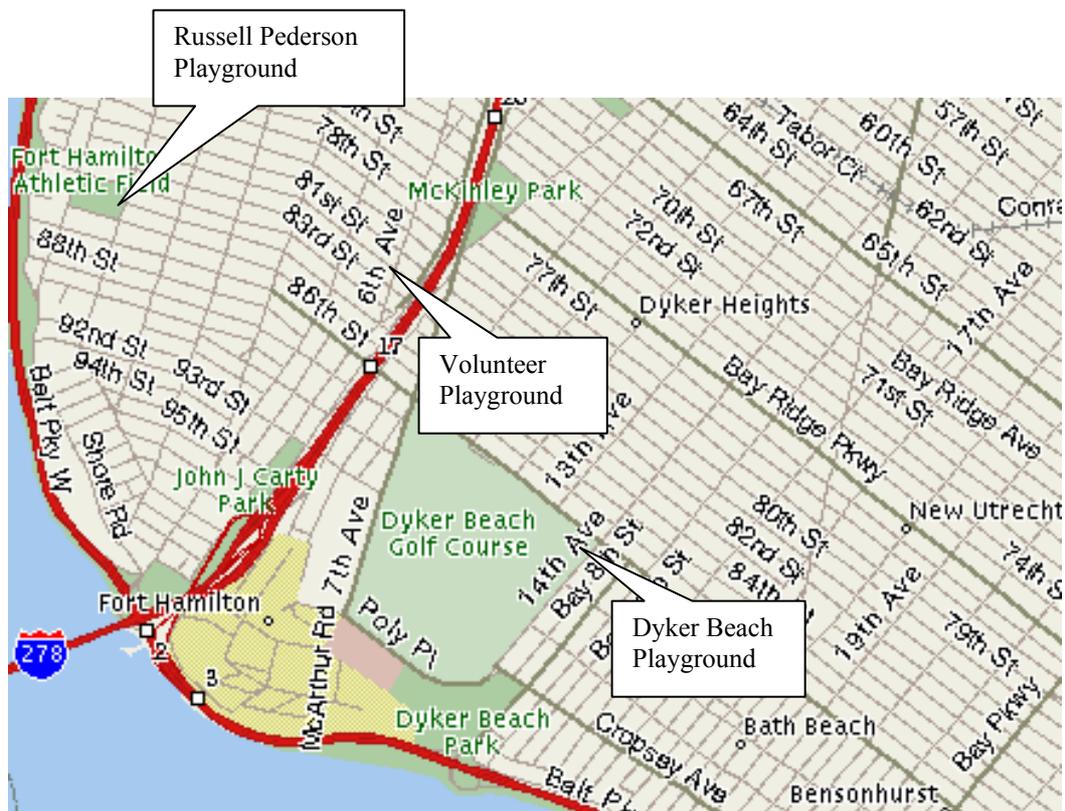


Figure 5.22 Location of the analyzed playgrounds in Bay Ridge/Bensonhurst, Brooklyn
Source: www.mapquest.com

V.5.1 Volunteer Playground, Bay Ridge, Brooklyn

Physical Layout: This playground surrounded by streets from its three sides; which carry heavy traffic load. It is fenced and totally segregated from the adjacent streets. Volunteer Playground consists of three parts to provide play space and play equipment for different age groups; toddlers and ‘younger’ children. Also, there is a relaxing area with chess tables and benches for adults.



Figure 5.23 Volunteer Playground
“Playground is totally segregated from the adjacent streets by fences”
Source: Personal archive

User Groups and Main Activities in Volunteer Playground

The results of naive observation method revealed that the main user groups are toddlers and ‘younger’ children and adults, who supervise them. Types of play equipment, such as swings, slides and monkey bars are suitable for the physical exercise of these children. Play equipment is settled on a rubber surface in order to prevent possible injuries. In the afternoons of both weekdays and weekends, these groups’ active engagements in the playground were observed.

Also, other residents heavily use this playground to relax, to meet others and to play chess on the multi purpose tables. Segregated parts of the playground allow different groups of users to spend time actively or passively.

On the other hand, ‘school age’ children are not the major users in this playground, due to the lack of suitable area for ball games, which are popular in this country. And the physical layout does not allow running, bicycling, or any other games played in groups.



Figure 5.24 Volunteer Playground
“Combination of play equipment is used by younger children”
Source: Personal archive



Figure 5.25 Play Space for toddlers and ‘younger’ children in Volunteer Playground
“Play spaces of different age groups are segregated by fences”
Source: Personal archive



Figure 5.26 Toddlers and ‘younger’ children’s activities in Volunteer Playground
“Toddlers and ‘younger’ children are the most common user groups”
Source: Personal archive



Figure 5.27 Adult’s activities in Volunteer Playground
“Adults enjoy their time in this playground; while playing chess”
Source: Personal archive

Evaluation of the Observations in and around Volunteer Playground

The results of the naive observer method revealed that this playground answers the need for active and passive engagement of different age groups; toddlers, ‘younger’ children, and adults who supervise them, and also other residents.

Interviews with parents revealed that they evaluate this playground physically, socially and psychologically comfortable. Provision of site furniture and landscape elements allow adults to relax while supervising their children. They can both passively and actively engage in this playground while relaxing and also assisting the child playing on the combination of

structures. On the other hand, the social interaction between users is weak,; they rarely talk to each other. In order to prevent possible child's injury, they only concentrate on what the child does.

The results of the naive observer method and interviews with the 'school age' children revealed that they do not evaluate Volunteer Playground as their play space and they do not like the types of play equipment in this playground. As mentioned previously, traditional type or combination of play equipment stimulate the child only physically. So, they do not attract 'older' children who need perceptual, emotional, social and intellectual stimulation in the outdoor environment. As it is clear in the pictures, 'younger' children like to play with such kind of equipment, but in order to prevent possible injuries, adult always supervise them. Also, all equipment is settled on a rubber surface to prevent serious injury.



Figure 5.28 Younger child and toddler's activities in Volunteer Playground
“Even for a toddler, any natural element can be more attractive than the play equipment”
Source: Personal archive

When the school age child (older child) was asked about the function of the residential streets for him/her, he/she never mentioned about the possibility of playing on the residential streets. Even they were not allowed to go to the playgrounds or schools by themselves because of safety concerns. Most of them stated that they spend time in their school's sport facilities and taken to school by school buses. It is clear that even the 'school age children' are not allowed participating in the immediate outdoor environments by themselves. Thus, accessibility to the existing play spaces or to other facilities and child's safe mobility in the residential area can be considered as problems for residents.

Due to the lack of any opportunity to establish their informal play spaces, a combined interview observation method could not be applied here. Even the front yards and back yards can not be used as play spaces. Also, while interviewing with them, gaining cooperation was difficult; it seems that parental concerns are not only related with high speed of cars, but also with social interaction with others.

When parents were asked about the function of residential streets in their neighborhoods, they evaluate it as only for cars. And they state their concerns in terms of safety of their children in the immediate outdoor environment due to high speed of cars. They do not evaluate the social function of the street in their neighborhoods.

V.5.2 Russell Pedersen Playground, Bay Ridge, Brooklyn

Physical Layout: Russell Pederson Playground is one of the most heavily used playgrounds in terms of its variety of places for different activities. It is placed on the side of a main street. Like Volunteer Playground, or most of other formal play spaces in the United States, it is fenced and totally segregated from the adjacent streets. So, spatial movement of the child can not exceed outside the playground and such kinds of closures with signs on them indicate that there are rules in the playgrounds.

Russell Pederson Playground consists of four parts to provide activities and play equipment for different age groups; traditional playground and play space with contemporary types of play equipment, public park and large fields for sport games.

User Groups and Main Activities in Russell Pederson Playground

The main user groups are toddlers with their parents and also other residents, who came to park to relax or to meet others. Like in Volunteer Playground, both traditional and contemporary types of play equipment are mostly used by toddlers and ‘younger’ children under adult supervision. Also ‘school age’ children were observed under adult supervision, but their main activity was to play ball games with their peers.



Figure 5.29 Russell Pederson Playground
“Public Park for adults”
Source: Personal archive



Figure 5.30 Younger children’s play activities in Russell Pederson Playground
“Younger children play under adult’s supervision”
Source: Personal archive



Figure 5.31 Younger children’s play activities in Russell Pederson Playground
“Traditional Playground is mostly used by younger children, but not by older ones”
Source: Personal archive



Figure 5.32 Younger children’s play activities in Russell Pederson Playground
“Adults always supervise the children”
Source: Personal archive



Figure 5.33 Basketball Field for adolescents
“Adolescents and the school age child mostly engage in sport activities”
Source: Personal archive



Figure 5.34 Site furniture in Russell Pederson Playground
“Tables and seating elements fit the needs of both the child and the adult”
Source: Personal archive



Figure 5.35 Area for water play in Russell Pederson Playground
“There are variety of physical elements; both natural and designed”
Source: Personal archive

Evaluation of the Observations in and Around Russell Pederson Playground

The results of the naive observer method revealed that in terms of meeting the needs of public, Russell Pederson Playground provides physical, social and psychological comfort to different age groups. Toddlers and the ‘younger’ child actively engage in play facilities by playing with various play equipment. Interviews with adults who supervise the child and other residents revealed that they evaluate this playground as physically comfortable because of the segregation of different activity settings and design elements that fit their needs; such as landscape arrangements, site furniture and also the restrooms.

The provision of site furniture for different age groups and landscape elements allow users to relax and to watch the other’s activities. Both adults and the child can actively and passively engage in this playground. On the other hand, like in Volunteer Playground, the social interaction between users is weak; they rarely talk to each other, only concentrate on what the child does in order to prevent possible child injury.

The results of the naive observer method and interviews with the ‘school age’ children revealed that they evaluate Russell Pedersen Playground as their play space. The variety of settings and diversity of physical and natural elements allow the child to experience the site in many ways. In this playground, there is variety of play equipment and combinations of them, but children do not like to play with non portable play equipment. Such kinds of

equipment do not stimulate the child perceptually, emotionally, socially and intellectually, they only contribute to the child's physical development.

A combined interview-observation format can not be applied around Russell Pederson Playground due to the lack of any opportunity to establish informal play spaces. When the 'school age child' is asked about the function of residential street, they do not evaluate it as their play space. Also, they state that they are not allowed to go to playgrounds and to schools in their neighborhoods by themselves due to their parents' concerns for the safe accessibility.

When parents were asked about the possibility of the residential street as a play space, they evaluate the residential street in terms of safety concern and high speed of cars. Thus, child's outdoor activity is depended on only adult supervision. Whether under adult supervision or not, any play activity could not be observed in any informal types of play spaces, such as front yards, side walks, and the street. It seems that the child has no opportunity to establish his/her own play space and no chance to be alone in the immediate outdoor environment, whether going to playgrounds or to schools.

V.5.3 Dyker Beach Playground, Bensonhurst, Brooklyn

Physical Layout: Dyker Beach Playground is located in the center of a large neighborhood and surrounded by two main streets in its two sides. Like most of other formal play spaces in the United States, it is fenced and totally segregated from the adjacent streets.

Dyker Beach Playground consists of several parts to provide activities and play spaces for different age groups. Main activity settings are; play space with traditional type equipment and combinations of play equipments, sites for ball games, fields for adult games, and a public park.

User Groups and Main Activities in Dyker Beach Playground

The results of naive observation method revealed that, the main user groups in Dyker Beach Playground are ‘toddlers’ and ‘younger’ children with adults who supervise them; adolescents and also other adults, who came to park to relax, to meet others and to play games.

Like in Volunteer Playground and Russell Pederson Playground, traditional and contemporary types of play equipment are mostly used by toddlers and ‘younger’ children under adult supervision.

‘School age’ children were also observed in the playground especially on the weekends. Rather than playing in traditional playground with non portable play equipment, they prefer to play group games, to ride bicycles or to play ball games in this playground. Like toddlers and younger children, ‘school age children’ are taken to playground by adults.



Figure 5.36 Play space in Dyker Beach Playground
“Combination of play equipment is preferred by younger children”
Source: Personal archive



Figure 5.37 Play space with swings in Dyker Beach Playground
“Physically segregated area for ‘toddler’ and ‘younger’ children”
Source: Personal archive



Figure 5.38 Field for adult’s game in Dyker Beach Playground
“Adults actively engage in Italian’s favorite game ‘bocci’ ”
Source: Personal archive



Figure 5.39 Public Park in Dyker Beach Playground
“Site furniture is suitable for physical, social and psychological comfort”
Source: Personal archive



Figure 5.40 Site for ball games in Dyker Beach Playground
“Older children and adolescents engage to sport activities”
Source: Personal archive

Evaluation of the Observations in and around Dyker Beach Playground

The results of naive observation method reveal that, Dyker Beach Playground can satisfy the needs of different age groups in many ways; variety of settings for both active and passive engagement of adults, play equipment both for toddlers and older children and also sport fields for adolescents.

Interviews with school age children reveal that, they consider Dyker Beach Playground as suitable for their physical activities; running, riding a bicycle, ball games, and other group games are their major activities in this playground. It seems that, such kinds of opportunities for group games and free plays make a sense of play space for children. On the other hand, a combined interview-observation format can not be applied here, due to the lack of any opportunity to establish informal play spaces and parents’ concern. When children are asked about the access to playgrounds in their neighborhoods, they told that they are not allowed to go to the playgrounds by themselves.

Interviews with parents revealed that, like in other playgrounds, safety and accessibility are the major concern. Parents do not allow their children to go to playgrounds by themselves or to play there without adult supervision. When they were asked about the possibility of establishing informal play spaces, which are nearest to their homes, such as front yards, sidewalks and the residential street, they did not evaluate these places as suitable for child

play. Thus, children have no opportunity to go to the existing formal play spaces by themselves or to establish their own ones in their immediate outdoor environments.

V.5.4 Evaluation of the Survey Analyses in Bay Ridge and Bensonhurst, Brooklyn, New York, USA

As mentioned previously, the aim of this survey analysis was to analyze the types of play spaces and to make comparison between the formal and informal play spaces, in terms of their contribution to environmental, physiological, creative, educational and social developments of especially the school age children. On the other hand, this survey analysis reveals that in such a developed country, child play habits and opportunities for play time are determined by adults and children are becoming more oriented to indoor activities.

The results of naive observation method and interviews with parents and their children reveal that both children and their parents and also the other residents are generally satisfied with the public provision of play facilities. They evaluate the formal play spaces as totally segregated from the dangers of traffic, well designed and landscaped and as suitable areas for child's play and variety of ball games. On the other hand, types of play equipment, whether traditional or contemporary stimulate the child only physically. Such segregated play spaces with immobile play equipment do not stimulate the child in perceptual, emotional, social and intellectual ways, which increase as the child gets older. Also, these types of physically segregated play environments with defined rules and regulations do not contribute to the creative and social development of the children.

The results of survey analyses reveal that parents or other adults do not evaluate the contribution of the immediate outdoor environment to the child's development. Safe accessibility in the neighborhoods is the major concern. That is why parents or other adults always supervise the child, while going to school, playgrounds or to any other place in the neighborhood. Thus, safety and accessibility are considered as depending on adult assistance.

During the observation period, it became clear that the analyzed three playgrounds are well designed public spaces to meet the needs of the general public; comfort, relaxation, passive and active engagement needs are answered in these playgrounds. On the other hand, in

terms of rights in public spaces, safety and accessibility to existing formal play spaces are the major concern. Thus, the child in the school age can not allowed to go to these playgrounds by themselves, even they can not go to schools in their neighborhoods by walking, due to the car dominance in the residential areas.

The results of both naive observation and interviews with the child and adults reveal that residential street is not evaluated as public spaces, in which social relations can be established. According to them the residential street is the channel for motor vehicle movement and the sidewalk is for pedestrians. Today, pedestrian accessibility in the urban environment and even in the micro scale is a major problem for American people, not only for children but also for others.

“Modern American zoning codes brought separation of as areas for shopping, recreation, and housing were not mixed. As a result, even the most trivial needs require car trip. Elderly people, children, and others incapable of operating motor vehicle suffer from limited accessibility beyond home. Modern transportation requirements of the car have marginalized pedestrian life on the streets and accessibility in urban and suburban neighborhoods” (Panayotova, 2002; “Ecology of the Street”).

On the other hand, interviews with parents reveal that they used to play on the streets and they mentioned about their memories on street play. However they have serious concern for their child safety outdoor that is why, they believe that the child needs supervision even in the playgrounds. Only the child in the ‘adolescence period’ comes to playground by themselves and they are engaged in sport activities in separated parts of playgrounds.

The child who live in such a dense community cannot find any opportunity to establish informal play spaces; whether from lower, middle or high income families. They have to obey the rules and regulations in a totally segregated area while playing. Thus, continuity of play and play provision always depend on adults’s intent and rules and regulations. In order to provide children with efficient play spaces in safe and healthy neighborhoods and to give the child free mobility in the immediate environment, some regulations which are stated in section V.4.4, can be considered as more necessary for these children, who can not find any opportunity to participate in the immediate environment by themselves. On the other hand, in such densely populated city, application of such regulations is fairly critical.

Also, the results of interview and observations reveal that there is lack of public awareness in terms of the importance of outdoor environment for child development. There have been

some approaches to make the streets more livable, but they have not gained so much attention.

“While popular in Europe, and with some planners and social scientists elsewhere, the livable streets movement has had limited application in the United States, due in part to the reluctance of many public works departments to turn control of the street back to the people. Livable streets efforts here have focused on speed-reducing traffic devices, such as speed bumps and barriers. And even those minimal efforts that incorporate pedestrian space, reduce traffic, and allow for extensive user participation-such as those found in the Netherlands, Germany and Norway-have not been extended into the larger public environments of cities in the United States” (Francis, 1987; 26).

To sum up, the results of survey analyses reveal that the residential street as being public spaces should be re evaluated. As explained in section IV.3.1, movements from European countries may provide inspiration and may evoke the importance of residential street for social integration and environmental experiences of children. However, application of such kinds of approaches seems highly problematic in such densely populated districts.

V.6 Comparison and Evaluation of Survey Analyses in Yukarı Ayrancı, Ankara, Turkey and Bay Ridge and Bensonhurst, Brooklyn, New York, USA

These survey analyses confirmed that; Children’s use of and feelings about the local urban environment vary by type of locality, socio-economic structure of families and parental concerns; School age children are not satisfied with the public provision of play facilities; playgrounds do not contribute to their physical, perceptual, emotional, social and intellectual development; ‘Play’ and ‘Play Space’ are considered as means of developing the child’s physical skills, its contribution to educational and social development of the child is not considered; Provision of play opportunities varies depending on family’s income level; Middle and high income family’s children are more indoor oriented; School age children have problems of participating in the outdoor world by themselves; Their mobility and accessibility in their neighborhoods are restricted due to parental concerns for speed of cars in residential areas; Accessibility in neighborhoods is the major problem for school age children, and also for other residents; The contribution of immediate outdoor environment to the child development is not considered.

In such a developed country like United States, the outdoor participation of the child is limited without adult supervision. Even, their play activities are determined by their parents and most of the school age children are sent to after school centers or spending time indoors. Whether from lower, middle or high income families, American children can be considered as more dependent to indoor oriented facilities. They have restricted opportunities to establish social relations in the outdoor environment by themselves and its negative influences can be observed in the development of the child from childhood to the following stages of development.

“There has been a substantial growth in antisocial behavior on the part of American teenagers. This growth reflects many changes in society, including the lengthening period of education and dependency on adults, the simultaneously increasing segregation of the population by stage in life cycle, and the decrease in the active participation of generations in each other’s lives” (Lang, 1994; 310).

According to Lang (1994) some things can be done through physical planning and design to enrich the lives of teenagers, but most of concerns are social ones. This continues to be the case for not only teenagers but also school age children. Thus, ‘play’ activity which is the child’s way of socialization should not be segregated only to physically defined, formally segregated play spaces.

On the other hand, in a developing country, like Turkey, child outdoor play habits depend on family’s economical status. The child from lower income family can spare time outdoor and has opportunity to establish informal play spaces. On the other hand, middle and higher income families concern for their child’s safety outdoor, and they prefer their children to spend time indoor.

In general, today’s children are more indoor oriented, both because of parental concerns for the child safety and also the lack of efficient play environments.

“Over the last 30 years at least, owing to concern for their safety, there has been a fairly steady increase in parental restrictions imposed on their freedom to be out and about on their own. More and more of them are escorted on their leisure and school journeys and up to an ever later age in their childhood. This may be having detrimental effect on their social and emotional development as well as, more obviously their physical development” (Hillman, 1999; Introduction).

It is clear that the quality of life of children, directly or indirectly, because of inefficient play spaces, and car dominance in the residential areas, is negatively affected. Desire for safety

from traffic in neighborhoods is obvious in many countries. It is clear that there should be strategies intended to return to children the opportunities for their development outside the home. While doing this, the main concern should be to understand the needs and right of children in more detail.

Since the first introduction of formal play spaces, there have been several approaches to develop the conditions of these play spaces. Rather than changing approaches in time, there should be permanent approaches to give the children what they really need. Changes in transportation, housing, zoning and most importantly the needs of contemporary child are the leading factors needed to establish a healthy shared community. In this sense, not only the function of residential street as being social and educative space, but also the contribution of whole urban environment should be reconsidered in order to foster communication and integration of uses, and enhance the environment for the life of both children and others.

CHAPTER VI

CONCLUSION

The fact that nature of childhood and play habits have changed and children today are more dependent to indoor oriented facilities, has brought the question of provision of outdoor play space and its quality to the forefront of environmental planning.

In this study, the aim was to evaluate the needs and rights of children in the outdoor environment and to understand their preference for the types of play spaces. So, the focus was given to the comparison of formal play spaces; the traditional playground with informal play spaces, especially the residential street. By studying the school age children's needs and rights, the intent was to outline the needs and rights of all children to have opportunities for freedom of action in the outdoor environment.

Although the main issue was not to criticize or to review the results of Modern Movement, its influence in terms of introducing formally designed, spatially segregated 'play spaces' in the urban environment was explained. The decrease in the participation of the child in the outdoor environment by themselves as shaped by modern practices of urban design and the growing trend of indoor oriented child together created new approaches to provide opportunities for children's play spaces. Thus, the main purpose of this study was to create an understanding of the changing approaches to answer the needs of children and their modification in several countries. For this reason approaches from Netherlands and other European counties were utilized, because of their special efforts to make child friendly streets. Today, 'woonerf' kinds of applications are considered as inspiration to establish child friendly streets. As explained previously, there are some standards to apply 'woonerf' kinds of design principles and in order to adopt such kind of approaches from one country to another, some modifications are required.

However this brings a question in itself; is it possible to consider such kinds of approaches as permanent solutions for the needs and rights of children. In this study, the results of survey analyses conducted in Brooklyn, New York, USA and Yukarı Ayrancı, Ankara, Turkey revealed that application or modification of such kind of approaches may be highly problematic in densely populated countries. It is clear that to reevaluate the function of residential street and application of some modifications to make it child friendly street, contribute to the needs of children. However, in order to give children what they really need, their rights in the urban environment should be reevaluated in much broader sense.

Modification of approaches to provide children with better play spaces may change within time, depending on urban development, public awareness and social and economical structure of communities. And depending on developing and changing approaches to child's play and play spaces, the nature of childhood and play habits may change, but the value of play does not change. Regarding with the value of play, to provide the continuity of play and play provision may not be possible by improving the conditions of playgrounds or with the modification of some approaches from one country to another. The contribution of outdoor environment for child's development should not be considered only in terms of safe residential streets in which children can play. The value of play for today's indoor oriented children should be considered as opportunities to discover, to have freedom of action and to establish social relations in the whole urban environment.

As explained previously, Lynch (1987) defined spatial dimensions of rights as *vitality (safety and consonance)*, *sense, fit, access* and *control*. These rights simply state that the child should not only have access to a public space, but also have freedom to use, change, and even claim the space, as well as to transfer their rights of use and modification, like other individuals. In this sense, Lynch's spatial rights provide an effective measurement of how today's children's rights are restricted in the outdoor environment.

In order to provide children with their spatial rights, first of all, there should be public awareness that fully understands the importance of play. Although 'play' is widely regarded as supremely important for child development, the United Nations Convention on the Rights of the Child recognized it as a basic right. As outlined throughout the study, children may want to play anywhere and anytime depending on the variety of information that stimulates them physically, perceptually, emotionally, socially and intellectually. That is why it is difficult for designers to establish a standard quality of play and quality of play provision.

Thus, child's rights and needs should be reevaluated, not only in terms of spatial provision of play spaces but also the provision of their rights in the community, which is necessary for their social development. In this sense, participation of children in the construction of their play spaces and even in the process of design of the environment can be efficient to make the whole environment child friendly.

Second, the concept of 'play' should not be considered only in terms of feeding child's needs in a spatially segregated and formally designed area; such as playgrounds. Also, to answer the needs of children, modification of some approaches should not be considered as permanent solutions; such as 'play streets', 'home zones', 'woonerf'. If the superficial thinking to the provision and renovation of playgrounds continues, such kinds of approaches have to be developed and changed in time, but the solution may not be permanent in each country.

Thus, instead of concerning for the modification of one approach from one country to another, and instead of improving the conditions of formal play spaces, there should be public awareness in terms of making playful, child friendly cities. In order to establish permanent solutions for the needs and rights of today's contemporary children, World Conference Resolutions of International Association for the Child's Right to Play can guide us, some of them are;

“The total urban area must be viewed as a potential play environment for children, and be developed accordingly (Ottawa 1978); Children need physically and socially safe access to a diverse and expanding environment close to home, without the assurance of constant adult supervision (Ottawa 1978, Melbourne 1993); The diversity of surroundings accessible to children should include all aspects of daily life of the adult community and its natural and built surrounding (Ottawa 1978); The process of planning, design and management of the environment should be one of participation by the total community, including its children. Professionals should work at this level to encourage community self- reliance (Ottawa 1978, Ljubljana 1984, Lisbon 1999)''.

Above resolutions can be considered as guidelines to provide children with safe, healthy and accessible outdoor environment and followed by the IPA's (International Association for the Child's Right to Play) member countries, who respect the child's right more than any other country. On the other hand, since all children need and have rights to share the outdoor environment, whether from developed or underdeveloped countries, such kinds of guidelines should be universal keys to the reevaluation of today's urban environment for the benefits of not only children, but also others.

In conclusion, if above guidelines are taken as keys to the planning of urban environment, it is possible to create child friendly cities. As stated by The International Secretariat for the Child Friendly Cities (1996; The Project: The Child Friendly Cities Initiative), in a child friendly city, children and youth are no longer a problem but a resource having the capacity to envisage new solutions. In order to provide children with what they really need, the only permanent solution necessitates public awareness in terms of making child friendly cities. Such kind of approach can be considered as efficient solution for the needs and rights of children and contributes to the continuity of play and play provision in today's rapidly changing urbanism.

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