THE ANALYSIS AND DESIGN OF URBAN NEAR-HOME ENVIRONMENTS ACCORDING TO PSYCHO-SOCIAL NEEDS AND BEHAVIOR OF HUMAN BEINGS

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By
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September, 1996

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Fine Arts.

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ABSTRACT

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September, 1996

In this study, the design of urban near-home environments are examined considering the social and psychological needs of human beings as well as human spatial behavior. After an introduction to the concepts such as environment, near-home environments, human-environment interaction, human basic needs, and human spatial behavior; the basic psycho-social needs of human beings are classified as safety, identity, social contact and privacy. These needs are analysed in relation to the design of urban near-home environments. Within this framework, behavioral concepts like territoriality, personalisation, crowding are also considered. Furthermore, a research is conducted in Ankara, in two middle-density apartments with near-home environment of different design features. This research explores and compares the influences of these environments-- which differ within themselves in terms of design characteristics--on the satisfaction of residents' psycho-social needs. Design suggestions are proposed at the end of the analysis of the findings of the research.

Keywords: Environment- behavior relation, design of near-home environments, safety, identity , social contact, privacy.

ÖZET

KENTSEL KONUT YAKIN ÇEVRELERİNİN İNSANLARIN SOSYO-PSİKOLOJİK GEREKSİNİMLERİ VE MEKANSAL DAVRANIŞLARI AÇISINDAN İNCELENMESİ VE TASARIMI

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Bu çalışmada, kentsel konut yakın çevrelerinin tasarımı, insanların temel sosyo-psikolojik gereksinimleri ile mekansal davranışları açısından incelenmiştir. Çevre, konut yakın çevresi, insanın temel gereksinimleri, sosyo-psikolojik gereksinimler, insan-çevre etkileşimi ve mekansal davranışlar gibi kavramlara genel bir bakışın ardından, insanın temel sosyo-psikolojik gereksinimleri güvenlik, kimlik, sosyal ilişki ve mahremiyet olarak sınıflandırılmıştır. Bu gereksinimler dikkate alınarak kentsel konut yakın çevrelerinin tasarım özellikleri tartışılmıştır. Yukarıda belirtilen çerçevede alansallık, kişiselleştirme, kalabalıklık gibi davranışsal kavramlar da ele alınmıştır. Bunun yanısıra, Ankara'da birbirinden farklı konut yakın çevresi tasarım özellikleri olan iki orta yoğunluktaki apartmanda araştırma yapılmıştır. Araştırmada, kendi içinde de farklılık gösteren bu çevrelerin tasarım özelliklerinin, kullanıcılarının sosyo-psikolojik gereksinimleri üzerindeki etkisi karşılaştırılmış ve incelenmiştir. Analizler sonucunda tasarım önerileri geliştirilmiştir.

Anahtar Sözcükler: İnsan-çevre ilişkisi, konut yakın çevresi tasarımı, güvenlik, kimlik, sosyal ilişki, mahremiyet.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

This study is concerned with the design of near-home environments, that is, the exterior and interior transitional spaces between the public street and the private dwelling in urban residential environments, in the light of human psycho-social needs and human behavior.

When shaping residential environments, human-environment relations become very important besides other factors such as economy, structural and aesthetic considerations. The spaces within and outside the multifamily buildings, the inner circulation areas and the immediate surrounding of buildings, should be designed so that these spaces can give the people a chance to increase their quality of life and have a healthier social and psychological life. For this, an interdisciplinary approach is necessary that includes contributions from interior design, architecture, urban design, psychology and sociology. In this study, with the contributions from these disciplines, urban near-home environments will be analyzed considering human psycho-social needs.

Concepts such as environment with its social and physical components, near-home environment, basic needs of human being are introduced in the second chapter. Afterwards, a framework that is based on basic psycho-social needs, i.e., safety, identity, social contact and privacy has been proposed.

In the third chapter, these needs have been examined first in general, and then within the context of urban near-home environments, together with human spatial behavior such as territoriality, personalization, belongingness, crowding, use of privacy mechanisms, use of control mechanisms, etc. These types of behavior which are facilitated or limited by the physical design of near-home environments are investigated within the framework of each need, through literature review and research examples.

The fourth chapter embodies an examination of the evolution of apartment housing in Turkey, also focusing on the physical characteristics of this type of residential environment, in relation to human needs. Afterwards, a research is presented that questions if the differently designed near-home environments of two residential buildings in Ankara influence the residents' behavior and satisfaction of needs. The quality of interior circulation areas and exterior spaces adjacent to the buildings has been examined and comparisons have been made in the light of observations as well as interviews held with the residents. The findings are discussed and evaluated. Based on these findings as well as the literature review, certain design suggestions that consider the importance of psycho-social needs are developed.

In the conclusion, environment- behavior interaction within urban near-home environments are evaluated through the findings of past studies and conducted research. Restating the main aim of the thesis, implications for future research are discussed.

2. THE ENVIRONMENT AND SATISFACTION OF HUMAN NEEDS

In order to analyze near-home environments within a framework that connects their physical features (planning and design) and the human needs, a clarification of the terminology to be used is essential.

2.1. Definition and Components of the Environment

The widely used term 'environment' indicates different meanings in various disciplines. Mentioned by Rapoport (1976), Lawton's description of the environment clearly presents the environment as a whole with it's five components:

> 1. The individual;
> 2. the physical environment (including all natural features of geography, climate and man-made features which limit and facilitate behavior), the spaces and distances between man and objects, and the "resources" of the environment;
> 3. the personal environment, including individuals who are important sources of behavioral control--family, friends, authority figures, and the like;
> 4. the suprapersonal environment which refers to the environmental characteristics resulting from the inhabitants' modal personal characteristics (these may be old people, an ethnic group, or other specific subcultures);
> 5. the social environment consisting of social norms and institutions (17).

The definition can be simplified, when the environment is thought of as a whole entity where people experience, perform activities and have a desire to fulfill their needs. Thus, the environment has an influence on the human. Then, besides the individual, the environment has mainly two components; the physical component,

which contains everything except human beings, and the social component, which contains all humans (Gehl, 1971). So "the environment can be seen as a series of relationships between things and things, things and people, and people and people" (Rapoport, 1982b: 178), implying that there is ongoing interaction between the social environment and the physical environment. These relationships are not random, they have a certain pattern and structure. These components influence behavior and imply certain meanings.

The physical environment has again two components: the natural environment and the man-made (built) environment. Built environments are planned and designed by humans. They can be seen as the organization of space (since all the designing and planning activities intervene and reorganize a certain geography and three-dimensional space); time (reflecting and influencing behavior in time); meaning (a nonverbal communication from the environment to people); and communication (verbal or nonverbal communication among people) (Rapoport, 1982b).

This definition also indicates how the physical and social elements of the environment are integrated to each other to form a complex network where they shape and are shaped by one another. So, the individual, as well as being a part of the physical environment with his or her actual physical being occupying a certain amount of space in the physical environment, is also a part of the social environment with his or her activities and relationships concerning other individuals. Thus, the physical environment may be used to exert different meanings to the society (to other individuals or groups of individuals) whereas all social and personal activities and behavior have a physical dimension.

2.2. Definition of Home and Near-Home Environment

What is intended by near-home environment here, is the spaces close to the house/home of the inhabitant, that may be used for services (such as parking, circulation etc.), for visual attractiveness, greenery, play for children, for activities such as talking, sitting and resting. They are the spaces connecting the dwellings within a building, the in- between spaces between adjacent residential buildings (within a residential block), the spaces between the building and street. They are the immediate surroundings of the home and the building. These spaces may also be called as micro-neighborhoods where all the residents have a daily experience and contact that includes approximately four to six dwelling units (Lansing, Marans and Zehner, 1970). So near-home environments may be both exterior and interior spaces.

Near home environments act as transition spaces between the public and private settings in the neighborhood. Here, the meanings of the public and private environments should be clarified. Any residential environment is composed of public open spaces such as streets, sidewalks and public settings such as schools, neighborhood stores, playgrounds. These are initially shared by the whole local community, and naturally serve the whole society. The urban residential environment also includes the multi- family buildings which house a number of dwellings at various sizes, having different densities where these dwellings (and the open spaces such as balconies which are connected to them) are owned and controlled by individual households, having personal, private worlds. The access by people of little or no acquaintance with the households is controlled, while the kin, close friends etc., are let in. These public and private settings are connected by spaces which are very critical in terms of the individuals' attitude and situation within their environment and the society- since they are the direct access from

their own territories. The territory here refers to the dwelling where the individual claims hers or his. So, these near-home environments act as bridges, or as transition zones between the private and public worlds in the residential environment.

Near-home environments, naturally, have both physical and social characteristics, where a relationship between the individual, neighbors, friends, relatives and strangers (the society as a whole) occurs. They are the settings where a dynamic interaction between the individual, the society and the physical environment takes place.

2.3. The Basic Needs of Human Being

In order to study human-environment relationships, the basic needs of individual should be considered at the start, since all the activities and experiences that the individual carries out through the lifetime are to satisfy the basic needs. Thus, depending on the outcome of the interaction of the individual and environment, the human can or can not fulfill his/her needs.

After an introduction of these basic needs, this structure should be integrated with the physical environment; particularly the near-home environment, to observe if the physical environment influences the satisfaction of the needs or not. So, the degree of the environments' capability of satisfying human needs should be taken as a basis when determining the quality of the environment. It is also clear that the interaction between the human and environment will generate behavior according to the degree of satisfaction of human being. Hence, the motivation behind one's behavior towards the physical and social environment will be the fulfillment of his/her needs.

Despite the large number of studies in the biological sciences and psychology, an agreement on the nature of human needs and their classification has not been reached. "Whether the human needs which express these drives are basically physiological, or basically psychological, or a fairly even mixture of the two, remains obscure" (Mikellides, 1980: 191). However, psychologist Abraham Maslow (1987) has made a hierarchical list of basic needs:

1. Physiological needs
2. Safety needs
3. Belongingness and love needs
4. Esteem needs
5. Need of self-actualization
6. The need to know and to understand
7. Aesthetic needs

Maslow states that the emergence of a need occurs gradually when the need proceeding it has been partially or fully gratified. So, there is a natural coming out of our needs gradually from the 'lower needs' to 'higher needs', where our goal is to reach finally a state of self-actualization. The sixth and seventh needs are considered by Maslow as cognitive needs, and they follow the five basic needs.

It is important, however, to bear in mind that, although most humans have these basic needs in such order, there may be certain exceptions where there are changes in the hierarchy.

2.4. Human Needs in Relation to Near-Home Environments

The factors that affect the satisfaction of human needs in near-home environments may be explained as follows:

1. The individual characteristics (personality differences, stage of the life cycle, home ownership)
2. The individual in relation to the social characteristics of the environment (cultural background, degree of homogeneity in the residential area, social status of individual and society, economic condition of the individual and the society, the personality of neighbors etc.)
3. Physical characteristics of the environment (will be explained in the later chapters of the thesis)

The *relation of individual with his or her social and physical environment* is dynamic, interchanging and continuous through time. Therefore, the fourth factor affecting the satisfaction of human needs can be stated as the passage of time. For example, the length of residence of an inhabitant in a residential environment, with its physical and social outcomes, is certain to affect the life of the inhabitant. The age of the residential area and it's built and natural components are also influential on the needs of the inhabitant, furthermore, changes with time.

So, the satisfaction of human needs depends on the individual, the social environment and the physical environment, with 'time' as an agent for variation. Since the organization of the physical (built) environment will be studied in the thesis, for convenience, the term "near-home environment" is used to refer to the physical characteristics of the near-home environment, instead of a more general approach to the environment. If we consider the physical environment and take a closer look at living environments (both home and near-home environments),

following Ingrid Gehl's classification (in Mikellides, 1980), we can isolate four different types of needs from Maslow's hierarchy that residential environments must satisfy:

1. Physiological Needs (sleep, rest, food, drink, cleanness, light, air, etc.)
2. Safety Needs (general safety depending on the environment's performance properties which should consider safety precautions, avoidance of pollution, accidents, noise, deterioration, etc.)
3. Psychological and Social needs (psychological safety and security, need for privacy and social contact, identification of oneself within the social and physical context)
4. Cognitive needs (orientation and wayfinding , aesthetic needs)

The safety need is repeated among psychological needs since it is believed that there are other factors and design features of the physical environment, besides the performance properties, that can provide psychological safety as well as physical safety.

The content of the following chapters will comprise the features of near-home environments in relation to human psychological and social needs, within the environment-behavior framework. The needs; safety, identity, social contact and privacy will be defined and analyzed in relation to the near-home environment, considering the interaction of the human spatial behavior and the environment. Implications for design of near-home urban environments in Turkey and elsewhere within this framework will be the basic concern of the following chapters. Moreover, the influence of the design of urban near-home environments in apartment blocks in Turkey on the satisfaction of human psycho-social needs will be examined in a

longitudinal study. In this study, the degree to which each psycho-social need requires to be satisfied in the near-home environment will be explored. More importantly, the behavior of residents towards the social and physical environment in order to satisfy these needs, and the relation of physical design and planning of the near-home environment to the fulfillment of these needs will be questioned. The research will investigate the influences of variations of physical design in the near-home environment on the satisfaction of the psycho-social needs of the residents in two middle-density apartment buildings.

3. HUMAN PSYCHO-SOCIAL NEEDS, CONCEPTS OF HUMAN SPATIAL BEHAVIOR AND THEIR RELATION TO THE DESIGN OF URBAN NEAR-HOME ENVIRONMENTS

Having introduced the definition of environment and near-home environment, with the claim that they have influences on the needs of the human being, a closer look can now be taken at the specific spatial behavior in relation to the psycho-social needs of the individual within the context of urban near-home environments. Since the beginning of the 1960s, certain behavioral concepts have been defined and their relation to the physical environment has been analyzed. It should be notified that one type of behavior is not always to gratify one particular need; rather, any behavior has the purpose of satisfying usually more than one psycho-social need. In the same way, a feature of the physical environment may encourage the satisfaction of more than one need- for example, safety as well as identity. Therefore, certain behavioral concepts may be examined in relation to more than one need within environments having different designs.

3.1. Safety

3.1.1. Safety in Built Environments

Safe is defined as "1 free of danger or injury 2 secure; not risky"; with safety referring to " being safe; freedom from danger or risk" (*The Oxford Dictionary of Current English*, 1993). Safety within and around home, then, contains these two

components. Firstly, the building must be safe in order to prevent the residents from accidents. This is rather related to the performance characteristics of the building; whether the planning and design involves human factors, correct choice of materials and dimensioning that realizes human ergonomics for all ages, for the disabled and elderly, whether the building is structurally and material-wise strong, fireproof, etc.

The second component refers to the security of the inhabitants themselves, their environments and their possessions from burglary, robbery, assault, vandalism and all sorts of crime. This component will be considered throughout the study, which may be specified as security or psychological safety.

The individual tends to defend his or her home and near-home environment, in order to feel psychologically safe and secure; in order to be able to use these spaces potentially for any activity. The physical design of the environment may enhance this defense behavior as well as safety feeling or it may discourage it. It is seen then, that there is a very close link between the behavior of the resident and the physical environment. This spatial behavior has been defined as territorial behavior.

3.1. 2. Safety, Human Spatial Behavior and the Design of Urban Near-Home Environments

3.1.2.1. Territoriality and Territorial Behavior - Definitions

The concept of territoriality in human beings initially emerged from animal territorial behavior and has been defined in that sense, but afterwards certain differences have been found between the animal and human territorial behavior (Edney, 1970).

Edney has grouped the definitions into three categories. The first category involves definitions that stress active defense--territorial behavior being the defense--by an individual or a group of individuals of a given area, a territory. Second category of definitions involves other behavioral characteristics besides defending a space against intruders; such as laying claim on a certain space within defined boundaries, occupy or possess a portion of space, and to personalize a space. Final category excludes defense, only emphasizing the achievement, use and control over a certain portion of space.

Territorial behavior may generally be described as the possession and defense behavior guaranteeing the satisfaction of the needs for security, stimulating activity and identity in a territory-- a defined space that the individual or a group claims 'his/hers' (or 'theirs')--referring to possessing, controlling, use of something (Greverus, 1976; Edney, 1970). It is clear, then, that certain activities can be carried out only in spaces where the person feels safe, and where the person can identify himself or herself with the space- which is especially true for the near-home environments. People can use their near-home environments for necessary activities (such as circulation) and optional activities (resting, growing plants, children playing, etc.) without fear and anxiety only if they perceive that they have control over the environment and have a sense of belonging to the environment, having no fear of violation of territory. Besides the nature of the social environment and the characteristics of the individual, the design features of the environment can also enhance territorial behavior.

3.1.2.2. Territorial Functioning in Near-Home Environments

The properties of near-home environments as transition spaces between the public and private spheres have been stated previously. Human territorial behavior differs

gradually within various spheres in the residential environment. Moving from the house to the near-home spaces towards more distant areas, the individual's territorial functioning decreases. Here, territorial functioning suggests the total set of attitudes and behaviors concerned with who has access and control over certain spaces, using those spaces and defending them to preserve the feeling of safety (Taylor and Brower, 1985). So, the inhabitants exert more territorial behavior when reaching closer to their home. This can be seen with their attitudes towards the spaces, such as being responsible for and maintaining the space, shaping the space that shows their control, using markers like signs etc., to communicate their defense behavior environmentally, using the space more comfortably for their activities; as well as behavior towards others within that space, like controlling the amount of access to the space and defending the space against intrusion and criminal behavior. Thus, as territorial functioning increases, unwanted intrusions, such as passage of strangers within the spaces where territorial functioning occurs more, are prevented, a sense of security and local order also increases.

The relation between the desired control, the potential threat and the distribution of these spatially at an ideal condition is illustrated in Figure 1 (Taylor and Brower, 1985).

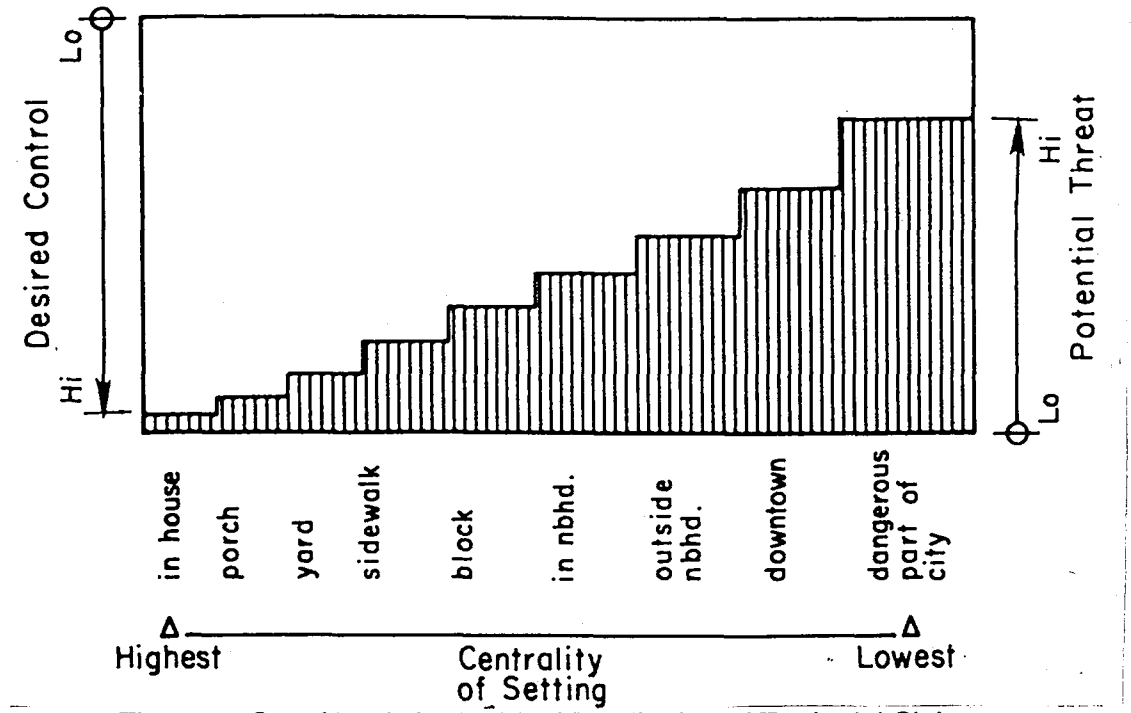

Figure 1. Step Heuristic: An Ideal Distribution of Territorial Claims
From Taylor,R. and S. Brower " Home and Near-Home Territories." *Home Environments.* Eds. Irwin Altman and Carol M. Werner. (New York: Plenum Press, 1985) 199.

The planning and design of the physical spaces should contribute to the territorial claims of the inhabitants in near-home environments. This means that the inhabitant should be able to carry out his or her territorial behavior toward the home and near- home environment in a healthy manner which will contribute to lessening the degree of threat within the environment.

3.1.2.3. Defensible Space

The relationship between territoriality and characteristics of the residential environment has been analyzed by Oscar Newman (1972), forming the concept of 'defensible space'. 'Defensible space' is an environment which has a capacity to create spaces which provide territoriality; a residential environment which naturally defends itself, giving the inhabitants a sense of security, sense of community and opportunity to make use of the near-home interior and exterior spaces that extends beyond the dwelling (Newman, 1972). In defensible spaces, the inhabitants are

encouraged to have an increased informal social control over their environment, so that they can act in some way to prevent criminal behavior (call the police, interrupt etc.) Defensible spaces are especially necessary in urban environments since the nearby surrounding of the dwelling is owned by more than one family-- as in multi-family dwellings, middle and high-rise flats. In urban environments, the relation between the inhabitant, the local society, including friends, neighbors and strangers, and the outsiders are far more complex than in a suburban or a small non-urban area.

3.1.2.4. Crowding- Definition

Crowding may be defined as the psychological and subjective experience when people have less space than the desired level (Krupat, 1985). In this case, the individual is dissatisfied because of the reduction of his/her freedom of choice in a certain space, not having 'enough' space. Thus, crowding experience may differ in relation to cultural as well as personal differences, since the feeling is subjective, and not directly related to density. Density is the physical description of a the number of people in a certain amount of space, it is based on objective measurements (Krupat, 1985). Although it can not be claimed that high-density leads to crowding, it certainly has a potential to increase crowding experience. Thus, high density along with certain social conditions can lead to crowding.

Crowding in a residential environment can be experienced in a small scale or a larger scale. That is, crowding can be experienced related to the number of people in a room and within a dwelling, as well as within a building and a residential area.

3.1.2.5. Crowding and Safety

When discussing crowding and safety, a further distinction should be made between subjective safety (fear of crime) and actual crime. The experience of crowding and high-density may have different effects on these.

Through many studies reviewed and conducted by Freedman (1975) and Krupat (1985), there has not been found a direct relation between crime and high-density. For example, comparing neighborhoods in New York with residents having similar socio-economic and ethnic backgrounds, but different densities (measured by number of people one interacts in the residential environment and also the amount of space in the home), the crime rate (measured by juvenile delinquency) did not differ. It was found out, however, that in poorer neighborhoods, there was a higher crime rate. The social conditions were claimed to be more influential on crime rates than the density of buildings or the proximity of buildings to one another.

In the above study, it should be notified that the relationship of crowding to safety was measured by the actual crime rates, which we can refer to as objective safety. This should be distinguished from research considering subjective safety (fear of crime), on which the experience of crowding and high-density may have different effects. Considering this, Freedman (1975) states that, when a large number of people are crowded and forced to live in a small area, they are likely to show ill behavior, feeling anxious and afraid. People sharing the same near-home environment, if they feel crowded, are less likely to feel responsible for that area, since they do not have a common bond. As individuals have a less possibility of knowing a large amount of people living adjacent to them, they find difficulty to recognize people, which may lead to suspiciousness and fear of crime.

Furthermore, this can easily cause anonymity and lack of identity, if the social conditions are also in the same direction.

Density and crowding, in relation to safety, identity, social contact and privacy should be studied together, considering the social context of the study. A further example of the effect of density on the satisfaction of these needs is discussed in Section 3.4.

3.1.3. Research Examples

In order to understand the relationship between human territoriality, perception of safety and the quality of near-home environments, a number of researches have been conducted. They aim to show how people living in various residential environments have different attitudes toward their near-home spaces and their social environments; considering crime, the residents' changing fear of crime and perceptions of safety.

3.1.3.1. The Pruitt-Igoe Housing Project

A number of researchers and other professionals (Newman, 1972; Newman, 1995; Yancey, 1971; Krupat, 1985) have analyzed the relation between the social network and the degree of vandalism and crime in relation to the physical design of Pruitt-Igoe, a high-rise public housing project situated in St. Louis, Missouri. The reason Pruitt-Igoe gained attention was because, although it was initially considered to be a successful project, there occurred a very high rate of crime and vandalism, causing the occupancy decrease over time by reason of its insecurity. Finally, about 10 years after its construction, it was demolished.

The 2000-unit project, built for and occupied by low-income occupants, consisted of 11 story buildings with the ground floor planned to serve for community activities. The buildings also had communal corridors on every three floor that contained laundry, storage, garbage rooms, the only public spaces within the buildings. However, these places were never used as planned; they were vandalized. The corridors, lobbies and elevators were also vandalized and were unsafe for the residents. It was interesting that, while 78 percent of the residents surveyed by Yancey were satisfied with the interior of their houses, only 49 percent were satisfied with living in the whole project (1970). What design characteristics could have had impact on such a difference?

From interviews held with the inhabitants, and through further analysis, it became clear that, besides the social deterioration within the project, that is, the social and economic factors that encourage crime, the physical design had an influence on the increase of crime rates. The problem with the building was that informal social networks did not form within the non-private spaces of the buildings, like corridors, stairwells, community rooms, etc. Parents were afraid to send their children outside their homes, especially people living on higher floors, since they had no surveillance over spaces even in the immediate surrounding, that is, they could not watch over their children. This lead to the fear for the children's physical safety and bad socialization (drinking, drugs, etc.). There were no semi-private spaces within the buildings, except for the galleries on some of the floors, where children could play. The residents were not known to each other. There was not any space within the buildings that could encourage the formation of informal relationships, which led to the perception of neighbors as 'strangers' and dangerous people. Thus, besides the social heterogeneity (racial and ethnic diversity of the people) within

the project, the lack of semi-private spaces that can accommodate community activities has been argued to be a reason for the absence of informal social groups.

Furthermore, the immediate interior and exterior spaces of the Pruitt-Igoe project were very allowable to crime and vandalism. The stairwells and elevators were feared by the residents, because of their lack of control. They were spaces that were too private and dark, when sealed off, which would encourage attacks of criminals and disapproved activities not suitable for such a place. The vast exterior spaces could not be used efficiently, as they seemed to be no-man's land; too open and public. Since each building was entered from the public grounds leading to the elevators and many families had right to go into the entrance and interior common areas, these spaces were perceived as completely public. Thus, strangers could get in and out easily, increasing the level of anonymity where the criminals could not be identified from the neighbors.

From this example, it is seen that density and crowding are important factors that influence the residents' fear of crime, together with other physical and social factors. Crowding decreases the inhabitants' territorial behavior towards near-home environments, which, in a healthy housing environment can be carried out easily, therefore, providing a sense of security at spaces surrounding the home. The space that belongs to no-one, or that no-one can take control of should be minimized.

3.1.3.2. The Van-Dyke and Brownsville Projects

In 1970s, Oscar Newman made a very interesting research to test his theories of defensible space (1972). He examined the relation between the crime rates and physical design of two large public housing projects across the street from each

other in New York, the Van Dyke and Brownsville Projects housing the urban poor (Fig. 2). The projects had similar size and density, and the social factors, such as socio-economic status, ethnic, racial and family compositions that could effect crime, were also similar. However, the overall crime rates in Van Dyke were 66 percent higher than those in Brownsville. Newman suggested that this great difference in the crime rates owed to the differences in the physical designs and planning of the two projects, which influenced the attitudes of the residents as well as the criminals.

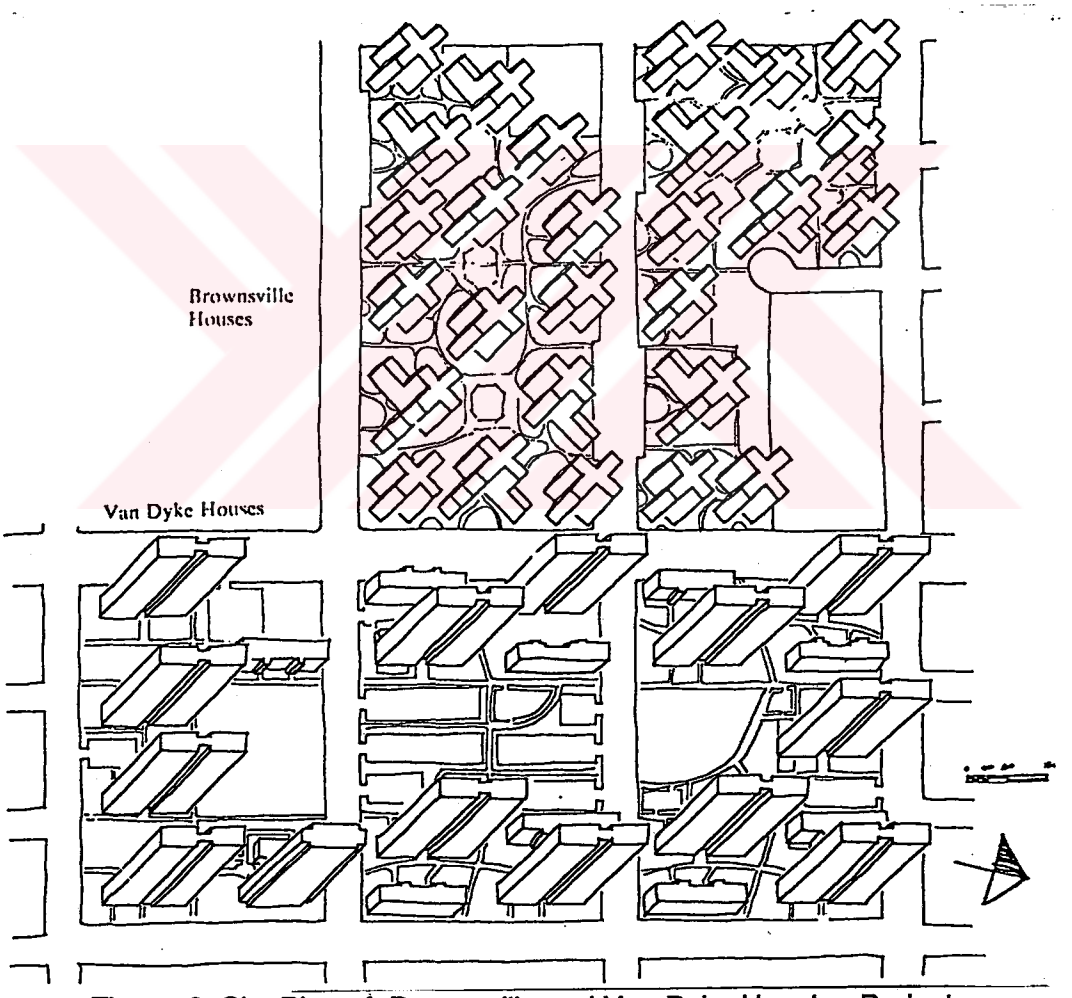

Figure 2. Site Plan of Brownsville and Van Dyke Housing Projects.
From Oscar Newman, *Defensible Space: People and Design in the Violent City* (London: Architectural Press, 1972) 40.

The design characteristics of Van Dyke are similar to those of Pruitt-Igoe project. It covers the 16.6 percent of available land, including three-story and fourteen-story multi-family buildings. The open spaces between the buildings are large, with even a larger area located at the center for parking and playground. The entrances to the buildings are dissociated from the street which prevents observation from the public street. Each level houses eight apartment flats, with the circulation area containing the stairs and two elevators.

Entries to Van Dyke buildings serve more than 100 families. This factor makes the individual have difficulty in distinguishing strangers from actual residents, while the parents are afraid to let the children use the near-home spaces because of their publicity, lack of control and surveillance. Thus, neither the corridors, nor the open land--which the buildings are not integrated with--can be easily watched from the homes, and, rather than giving a sense of safety, they give a sense of anonymity. It is also stated that, people in the stairwells are subject to crime, since the fire-proof material used also has sound-proof qualities which makes it impossible for the outsiders to hear if anything happens inside. Besides, the stairwells and corridors can neither be monitored from the interior of houses, nor the outside since there are no windows (Fig. 3,4).

As in the Pruitt-Igoe project, no places for any community opportunity in the exterior or the interior exist. The design of near-home spaces does not promote territorial behavior where a person may use, control and identify with oneself or with a small community, like a number of families. Zones of transition from the public sphere to the private are not created. This leads to the increase of crime in the areas adjacent to the dwellings.

Examining the design of Brownsville, a project covering 23 percent of land and composed of three and six-story buildings, a difference in the relationship of building and the open land initially exists. Open spaces are more defined and more integrated with the buildings, easier to let the inhabitants take control over them. Adjacent areas nearby the buildings are open to surveillance from the interior of the homes, for example the kitchen, and this allows parents to let their children play there. Besides, additional activities like sitting, resting etc., can take place in these spaces, allowing the formation of an informal network between neighbors, with an increased feeling of safety than in the Van Dyke project (Fig. 5,6).

Six families share a flat in Brownsville where the interior circulation area is further divided into two vestibules (Fig. 5). This additionally defines the places that belong to the families. Children's activities taking place in the corridors, hallways and stairs are viewed by residents keeping the home's door slightly open, and extending their territorial behavior beyond the dwelling. The elevators stop at every two floors, which somehow allow a vertical communication between the residents. Since the number of stories is lower than Van Dyke, fewer people use the entrances and it is easier to identify neighbors from strangers in Brownsville.

Newman's views on defensible space have attracted certain criticism, in terms of methodology and the model being too deterministic (Krupat, 1985). However, it has also been an initiator on the studies between the linkages of the physical environment and the residents' need of security and safety in residential environments. Using his basic design tools of defensible space, Newman has directed many urban revitalization projects in neighborhoods where there is a social and physical deterioration and a high crime rate (Newman, 1995).

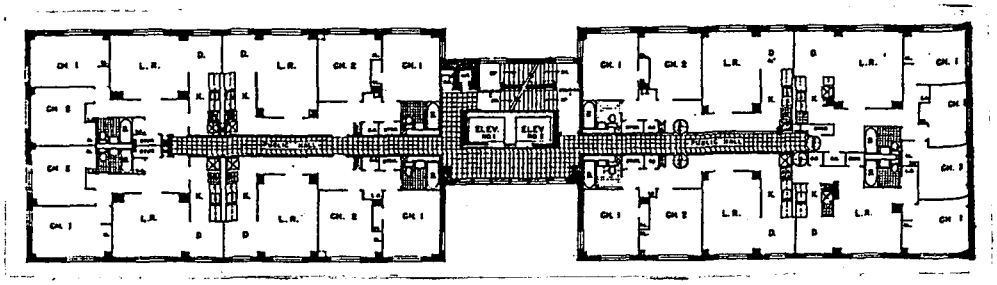

Figure 3. Floor Plan of Van Dyke Houses.

Figure 4. The Near-Home Environment of Van Dyke Houses.
The entrance to the buildings are dissociated from the street, preventing surveillence and intervention by autos, pedestrians, police. The central grounds are isolated from the buildings, making it difficult for surveillence, use and identification.

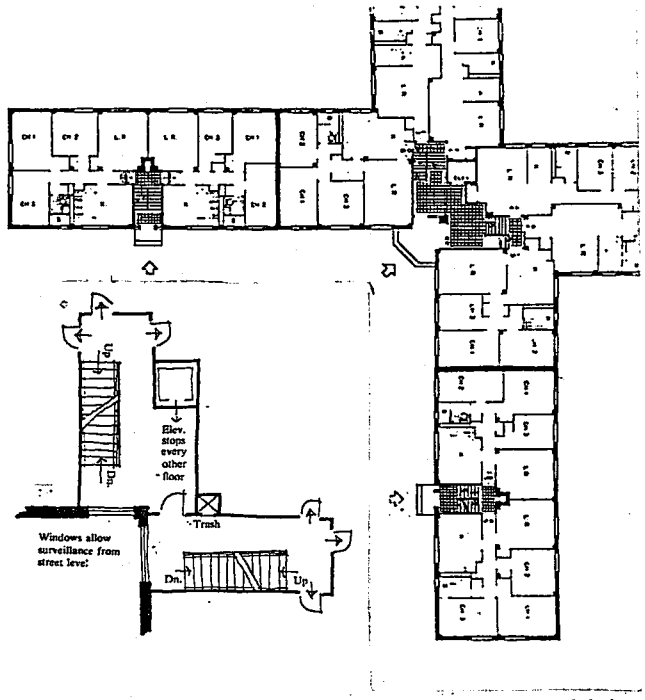

Figure 5. Floor Plan of Brownsville Houses. Three entries, which allow surveillence opportunities, reduce the number of people using each entry.

Figure 6. The Near-Home Environment of Brownsville Houses.
The semi-public triangular zones created between the street and building are used for various activities by the residents, and they can be easily observed.

From Oscar Newman. *Defensible Space: People and Design in the Violent City*. (London: Architectural Press, 1972) 41- 45.

3.1.3.3. The Baltimore Neighborhood

To analyze the residents' attitude, behavior and use of open spaces in their housing environment, a longitudinal case study was done in a low-income, black, inner-city neighborhood, Harlem Park in Baltimore (Brower, 1988). The typical block is composed of row houses with three to four stories facing the street with their backs adjacent to a central open park in the middle of the blocks (Fig. 7). A few alleys run through the houses toward the back. The crime rate was high in the neighborhood when the study began (1971), and this was a serious problem for the residents, along with noise, trash and drug use.

Figure 7. A Typical Block in Harlem Park, Baltimore.
From Sidney Brower. *Design in Familiar Places: What Makes Home Environments Look Good.* (New York: Praeger Publishers, 1988) 126.

When the general use of the open spaces was examined, it has been found that, the street front is used much more than the central parks of the blocks for recreation. In fact, the usage of the parks is much below their capacity. The reasons for this are mainly the two basic social-psychological needs: social contact

and security. For the residents, the street front is more joyful to chat with neighbors and view passers-by, and the feeling of security is higher since there were more people, it is open, visible and lit at night (Fig. 8). Besides, parks can not be clearly viewed from the houses, so the parents prefer their children to play at the street front to keep an eye on them, in spite of the heavy street traffic. The parks are occupied by the older teenagers that eliminate the younger children, undesirable people and strangers from other neighborhoods; this causes the parents to fear their children to be hurt there, or get used to bad habits (such as drugs). Since the parks are open to public access and surrounded by a large number of blocks, the quality of people that use them can not be controlled by the block residents, maintenance is low and this leads to the unavailability of the parks for those they were actually planned for.

Figure 8. The Street-Front in Harlem Park, Baltimore. Residents have informal social control over, and take responsibility for the sidewalk.
From Sidney Brower. *Design in Familiar Places: What Makes Home Environments Look Good.* (New York: Praeger Publishers, 1988) 157.

The social environment is a very critical factor in the sense of security and its reflection on the use of the near-home environments. Thus, Brower (1988) states

that inner parks in middle-income areas with the same planning approach are used more frequently than the lower-income black neighborhoods, since there is less mistrust and fear among the neighbors and strangers.

3.1.3.4. Dover Square

The final study that will be referred to in this chapter was carried out in the United States by Sally E. Merry, in an inner-city housing project, Dover Square (1981). It was composed of 300 four--story low-rise apartments clustered around dead-end courtyards in the centers. The crime rate was very high when Merry made a longitudinal study handing out questionnaires, making interviews with residents, the victims about their fear of crime and the relation with the residential environment, as well as interviewing the criminals who made robberies.

The residents were composed of people from different ethnic backgrounds, Chinese, black, white and Hispanic, who had different social networks in their own ethnic communities and did not interact with each other. Socially disintegrated groups remaining strangers with the neighbors were common in the area.

Merry argues that, defensible space mechanisms are not satisfactory to prevent crime; the social fabric of the living environment is also an influential factor of crime. She claims that, the design of the buildings in Dover Square is generally successful in terms of defensible space. That is, they have little interior public spaces that belong to nobody, the flats in the four story buildings are connected by exterior stairwells and are clustered around semi-public courtyards, which can be viewed by the residents, the building densities are low, with few families sharing an entrance. However, crime is frequent and most residents fear from it.

This is due to several factors concerned with both the social environment and the physical environment. Firstly, the design has yet some qualities that lack natural surveillance. The exterior stairwell, turning several landings, enclosed by a translucent wall (instead of a transparent one) makes it impossible to be observed clearly. Merry states that half the robberies actually took place in these stairwells where there was a lack of surveillance.

Secondly, the entrances look out the courtyards, instead of the streets, which are widely used. The courtyards are not used very much, due to the heterogeneous nature of the population and due to the lack of activities assigned to the courts, and they remain frequently empty which leads the entrances to be perceived as dangerous. Since the courtyards are isolated from the streets, they are not very attractive for the residents who prefer sitting out and watching the streets where there is more socialization. This attitude is similar to the attitudes of the residents of Baltimore neighborhood.

A very important drawback of the whole plan is its confusing organization. The residents feared that even if they called the police it would be very difficult for them to find their way. The design, composed of juxtaposition of courtyards, play areas and buildings, prevents the residents' orientation and encourages criminals. Thus, the robbers who were interviewed were very conscious about the quality of spaces. Places which could not be visible, could not be 'defended', streets with little traffic and no windows looking over were chosen as good places for robberies. An important architectural factor for their choice of place was good escape routes. Multiple routes with turns and corners, and maze-like organizations were preferred for robbery, even when they are open and visible!

From the above study of Dover Square, we can conclude that indeed architectural design features are influential on crime rates. When designing residential environments, even minor changes in details may encourage or prevent crime (for example, the material that encloses the stair). However, they can not be adequate if the necessary social environment is absent. Thus, the designation of courtyards or low-density buildings was insufficient to discourage crime when there was the fear among the neighbors themselves, seeing one another as dangerous and 'strangers' because of the ethnic differences.

The physical environment and the social environment should be examined as a whole in near-home spaces, considering the individual's defense behavior and safety needs. Mainly home and the near-home environment should encourage the residents' effective territorial behavior; that is, it should allow the resident to be able to control and defend the near-home spaces against crime and vandalism, in order to be able to use it for any activity securely, and without fear.

One last point should be signified, the details which will be explained in the next section. There is a strong relation between reflection of territorial behavior and identity in the near-home environment which is likely to influence safety. Signs of territorial behavior within a near-home environment are received by the residents and criminals. That is, if some sort of control is exerted over a space, this is naturally shown by the inhabitants' shaping of that space (cleanness, use of elements, planting, caution signs etc.). This can bee seen in the Baltimore neighborhood (Fig. 8), where the sidewalks are furnished as if they were private spaces, by the residents, and outsiders spending a lot of time there invite suspicion. Then, this behavior not only increases the feeling of identity, but also safety, and discourages potential criminals. Hence, the physical design features

affect the attitudes of the residents towards their environment, and their feelings of control and safety. Likewise, the belongingness and control revealed by the residents through their behavior towards their physical and social environments (increased maintenance of the environment or gestures that indicate control to the strangers) have a potential to push back the inclinations of the criminals. There occurs a dynamic relationship between the environment and the inhabitants, carrying certain meanings for the inhabitants themselves as well as the outsiders.

3.2. Identity

3.2.1. Identity and Place Identity - Definitions

Before understanding the relationship between human identity and environment, one should first explore the meaning of the term identity itself within a broader context. Identity , in general, is the individual or a group of individuals being seen by others different from others (Rapoport, 1982a). This clearly defines the limits of 'me' and 'not me' or 'me' and 'them'. Thus, identity requires the existence of the self (and the expression of it by any means) in the social and physical environment, in order to be recognized as an individual among others (Scott, 1971). If the individual is treated as everyone else, just another among the rest, then the feeling of 'anonymity' occurs which endangers the individual's mental health. Thus, establishment of identity provides a personal distinctiveness instead of anonymity.

All sorts of identity; which may be individual identity, group identity, or even national identity, includes a content and a boundary (Rapoport, 1982a). Here, the content defines what is within the unit that has the identity and what includes 'others'. The boundary is the means and way that limit between these two contents, where the important entity is to make this boundary known and clear by

everyone. This boundary may be territorially oriented (spatially defined), defined by life-styles, religion etc.

It is necessary to revise the types of identities communicated by human beings briefly (Rapoport, 1982a). The identity expressed may be individual identity or a group identity. It may be communicated internally (the individual to the members of the particular group) or externally (the individual or the group communicating identity to others or outsiders). Finally, it may be perceived as positive or negative identity by the outsiders.

Establishing an identity and communicating it with others is very crucial for the human being. Thus, if the sense of identity is lost, alienation occurs, which leads to uncertainty about any life activities and repression of emotional experiences, as well as disclarity of self-identity (Ahmad, 1986). This prevents the person from self-actualization, using the full potential of the individual and threatens the relationship of the person with people, values, experiences and the environment in general.

The way identity is expressed changes cross-culturally. This is mostly because there are different ways to communicate identity in the environment, and people with different values, traditions etc., place different meanings to human behavior, places and things. Thus, besides the means of expression (socially or physically), the properties of the identity type may also change, such as social identity, cultural identity, ethnic identity, religious identity.

The physical environment is only one of the means to communicate identity in home and near-home environments. Obviously, the human carries out certain attitudes towards the near-home environment when aiming at achieving identity.

Therefore, man- environment interaction and the behaviors concerning the satisfaction of identity should be discussed.

Particularly the home and near-home environment are used to situate, maintain and transform identity, forming 'place identity', by using environmental meaning to answer the question 'who am I?' extending to 'where am I?' or 'where do I belong?' (Cuba and Hummon, 1993). Place identity is seen as a substructure of self identity containing memories, ideas, preferences, behavior, attitudes, satisfactions and experiences about and within the physical world in which the individual lives (Rivlin, 1987). Thus, in the home and near-home environment, the identification with place gives the individual a form of self-definition, a sense of being at home, being in a familiar environment, and having a sense of belonging. Through place identity, the individuals want to emphasize that they belong to that environment, and have cultural, personal, social meanings attached to that place.

There are many sources which nourish place identity, some of them socially and others physically oriented. Some sources related to the social environment and time can be described as the people and place experiences, the length of residence (long term residence increases place identity), the stage of the life cycle (for older people, identity with place becomes more important), sense of community etc. (Cuba and Hummon, 1993). The final source, sense of community has also indirect relations with the design of the physical environment which will be explained in the next section. Other sources have their foundations in the direct relation between the human, the home and near-home environment. Thus, identity of the individual and its relationship with the environment is particularly important when there are no other means of maintaining identity available (Rapoport, 1982a). At this point, it is vital to examine the forms of spatial behavior the

individual acquires to healthfully situate himself/herself in the social and physical world.

3.2.2. Identity, Human Spatial Behavior and the Design of Urban Near-Home Environments

3.2.2.1. Territoriality and Identity

It is clear that, territorial behavior also includes within itself the need for indicating one's own identity through the environment. Territorial behavior helps one to satisfy safety, stimulating activity and identity within a certain space, these concepts altogether forming a unity.

The behavioral reflection to satisfy the needs of stimulating activity, safety and identity can be stated as occupation, defense and place attachment respectively. Thus, only if the human can feel safe in any residential environment, he or she can carry out his or her activities freely within that environment. This constitutes having a control of the amount of access there (strangers or friends), and also controlling the regulation of the space. That is, certain behavior is carried out in the social environment (keeping certain people out, or having an informal social control) as well as the physical environment; controlling the environment, shaping it, maintaining it and using it. This leads to another concept concerning man-environment relations: personalization.

3.2.2.2. Personalization and Identity

Personalization involves taking possession of a space by completing, shaping and changing it by the user (Rapoport, 1982a). It is a form of creating identity in a personal level, "accommodating the individual's own spontaneous usage in an

open-ended environment " (Egelius, 1980: 139). This way, the inhabitants in any housing environment can be free to reshape and change the environment according to the changing needs and desires. Through personalization, the human being can project his own identity to the social and physical environment, creating his or her own domain, placing his or her own cues that acquire meanings within the environment.

3.2.2.3. Flexibility of the Near-Home Environment and Positive Outdoor Space

One aspect of the near-home environment to provide expression of identity is through flexibility. The environment should enhance the residents' personalization process, allowing their shaping the environment according to their specific needs and desires.

In near-home environments, the general elevations of the buildings are important media for the inhabitants to communicate identity. Still another physical aspect of residential environments is the organization of spaces. It has been stated earlier that territorial behavior is a mechanism to maintain identity, and therefore the organization of spaces from public to private is also a valid design principle in near-home environments. Thus, the hierarchical composition of spaces, with near-home spaces closer to the dwellings available for modification to a certain degree can be a possible solution for the satisfaction of identity need.

In the same manner, external expression of the dwelling in certain portions of the buildings (for example, semi-private areas) may be shaped by the dwellers themselves. In this way, the extension of identity from the home to the near-home territories can be established. The flexibility of the near-home environment should

allow a balance between the decisions of the designer and the shaping of the residents. The extreme case of the conflict between the designer and the residents can be characterized in one of the earlier examples of modernist buildings: the Lake Shore Drive Apartments in Chicago by the architect, Mies Van der Rohe (1948-1951). Here the residents were obliged to use the same kind of standard metallic blinds instead of individual curtains in order to express a homogeneous image from the exterior. Besides, building balconies was prohibited, in the belief that they would prevent the purity of form (Darton, 1990). This is a complete destroyal of the respect for individual identity of the residents, for the sake of formal desires.

Certain elements can be used to personalize a near-home space within a residents' territorial domain. These take place nearby the fixed-feature elements; that is, the fixed elements of the built environments, such as the walls, doors, windows of the building. The elements placed by the resident are usually semi-fixed feature elements; such as plants, trees, bushes, fences, mailbox, signs, benches etc., since they are used to reshape and transform the environment after the designation of the professional. In order for the near-home spaces to be available for such a modification, they should be related to the buildings to form positive outdoor (or indoor) spaces.

There are many examples of urban near-home spaces which lack this kind of property. The outdoor areas are not clearly defined, perceived as 'no mans land' and can not be defined in order to be modified. In The Pruitt Igoe Project, and many other middle-rise and high-rise projects, the near-home spaces do not give a sense of spatial identity, a spatial definition. This is why the residents can not identify themselves with these spaces, can not control them, territorially own them,

distinguish them as their own, express their personalities and needs through them, and maintain them. They can be defined as negative outdoor spaces, since they are shapeless, left over from the massive solids of buildings. Positive outdoor spaces, on the other hand, have a distinct and definite shape, they have relationship with the residential buildings so that the people and activities within the building can easily flow outside. In the same manner, the extension of identity can be encouraged from the inside to the outside (Fig. 9.)

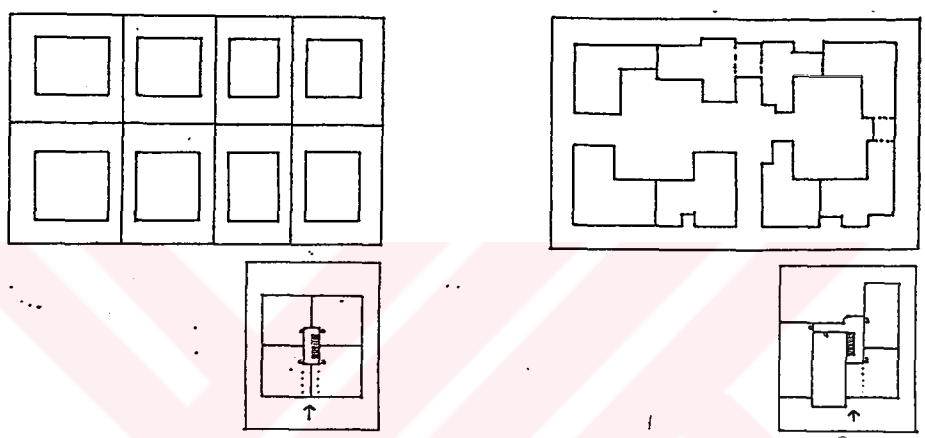

Figure 9. Negative (left) and Positive Outdoor Spaces. In the first, negative outdoor spaces dissociated from the buildings are formed, whereas in the second, defined areas are formed integrated with the building's private and semi-private areas.

3.2.3. Research Examples

3.2.3.1. The Maori in New Zealand and Puerto Ricans in America

A cross-cultural analysis is made by Rapoport (1982b) in order to clarify different means of communicating identity by different cultural groups, searching for the impact of the design of near-home environments on the differences of the way people choose to express their identities. The differences between the Maori of New Zealand and the Puerto Ricans in Boston were examined. The Maori have formed a symbolic space called *Marae* where they carry their traditional patterns

and life-styles as well as environmental properties. Ritual meals, certain meetings are held there, while the space is used to express a cultural reality and a social position. These are built in urban neighborhoods and show the existence of the Maori culture. Besides some other means, such as language, they are the central point of the ethnic identity of the Maori.

The Puerto Ricans in Boston have a different set of environmental elements for maintaining their ethnic identities. The social and group identity can at most be expressed within the dwellings by the choice and organization of certain objects and furniture, to the members of the group, that is, to the people who are close enough to enter the dwellings. Yet, expressing the ethnic identity of the group outside the dwelling to other ethnic groups, within the neighborhood, is also important. However, the Puerto Ricans living in a public housing project do not have a chance to express this in their near-home environments, since the major architectural features and the management block the way. Thus, 'external expression through dwelling personalization' is prevented, leading the communication of identity by means of clothing, language or owning a car.

The imposing character of many middle and high density urban housing schemes prevent the expression of identity of the individual in different levels. In the modern cities, it is occasionally very difficult to distinguish a residential area from another, across cities or even countries (Hough, 1990). Thus, the sense of place, of being 'at home', or place identity is being lost. Although every individual is distinct from one another and wants to be recognized as a distinct human being, the external expressions of many multi-family buildings are homogeneous, similar and prevent personalization. Personalization can only be accomplished through windows and curtains.

3.2.3.2. The Canada Study

One property of design can influence the satisfaction of one or more needs of the human, such as fulfilling both the safety and identity needs. The final example of a research and its analysis in the satisfaction of the psycho-social needs of safety, identity and social contact will be illustrated to show the integration and complexity of the man-environment interaction.

In Canada, the social interaction and communication between neighbors in detached houses and apartment residents were compared by Reed in 1974, with the finding that there was less interaction in apartments (in Rapoport, 1982b). Five sets of reasons were given for this finding about communication. These can be interpreted relating the consequences of the dissatisfaction of the need of identity through design to the dissatisfaction of other needs, such as interaction, privacy and safety.

1. The physical structure or layout of the residential type
2. The symbolic (communicative) aspects of residential units and nature of information control provided by respective units.
3. The relative homogeneity or heterogeneity of respective populations
4. The mobility of the respective populations and length of residence

The first reason is based on the direct relation between the near-home environment and social interaction. The second reason shows an indirect effect of the physical environment to social interaction. It can be argued that people tend to communicate with other people who they can collect information of, who they can situate in the social environment. This is particularly important when characteristics (or identities) of the others are less predictable by other means; thus, in

heterogeneous apartments, the physical cues become essential for the communication of meaning through the near-home environment. However, the physical character of apartments does not allow personalization that can be perceived from outside, so this information about the neighbors in terms of lifestyle, social status, preferences etc., is lacking. The personalization is blocked because of the identical units, as well as due to the lack of semi-public and semi-private near-home spaces where the people can socially communicate (more related to the first reason), as well as physically communicate their identities by the usage of semi-fixed feature elements (maintenance of space, modification of space by planting, decoration, colors, benches etc.). When these are not provided by the near-home environment, the control of wanted or unwanted interaction is less possible. This may lead to fear from neighbors (who the individual knows too little), lack of the distinction of the individual among others, leading to anonymity, lack of the control of the degree of social contact and privacy.

3.3. Social Contact

3.3.1. Social Contact and Sense of Community- Definition

The need for social contact, when viewed in the basic framework of Maslow's basic needs hierarchy, is essential to satisfy the needs of belongingness and love (the third need in the hierarchy). The human needs giving and receiving affection. He/she needs to form contacts with people to belong somewhere in the social and physical environment. The lack of belongingness and love needs leads to loneliness, and an urgent desire for having relations with people in general (Maslow, 1987).

The desired level of social contact varies from person to person. Likewise, the levels of social interaction and the places of social interaction change cross-culturally. The important thing is for the individual to be able to choose and to control the amount of social interaction he/she needs in the near-home environment. Then, the near-home environment should provide a design that can balance between community and privacy of the residents, and it should be designed according to the particular social needs of that specific group.

Sense of community of individuals are influenced by the degree of fulfillment of contact needs. The components of sense of community can be summarized as membership, influence, integration and fulfillment of needs, and shared emotional connection (Mc Millian and Chavis, 1986). As in identity, which has the boundaries between 'me ' and 'not me', community has also the boundaries of who belong within and who belongs to the 'others'.

The term community may either refer to the quality of the character of human relation with reference to a geographical and territorial location (such as near-home environment, neighborhood, city etc.), or it may be a 'relational' community, not referring to any specific location. Thus, spiritual or emotional communities, or communities formed around interests and habits are of this type (Mc Millian and Chavis, 1986). The first may be specified as community of place and the second, community of interest. The discussion of sense of community in this section will concern community of place in the near-home environment.There are many sources that reinforce sense of community. Within the general framework proposed by Mc Millan and Chavis, several sources stand out, which the design of the physical environment may indirectly affect, and thus enhance a greater sense of community (1986):

1. *Contact hypothesis:* The more people interact, the more likely they are to become close (Allan and Allan, 1971; Festinger, 1950; Sherif, White, & Harvey, 1955; Wilson and Miller, 1961).
2. *Quality of interaction:* The more positive the experience and relationships, the greater the bond. Success facilitates cohesion (Cook, 1970).
3. *Closure to events*: If the interaction is ambiguous and the community tasks are left unresolved, group cohesiveness will be inhibited (Hamblin, 1958; Mann and Mann, 1959).... (13-14)

From this argument, it is clear that increase of social contact, and the nature of the social contact (whether it is positive or negative) has a direct effect on the sense of community. Therefore, the achievement of sense of community in the near-home environment has links to the degree and nature of the social contact between the individual and the neighbors.

3.3.2. Social Contact and Sense of Community in Urban Near-Home Environments: Neighboring

Today, community formation has extended beyond the physical boundaries of the neighborhood in the urban environment. The nature of many communities, formation of friendships, organizations of formal and informal social networks are disconnected from the near-home environment. The separation of residential districts with working districts has changed the living patterns and socialization patterns of many urban residents. The local area has become out of focus with the increase of mobilization and the opportunities found elsewhere. Thus the dependence on local social networks for the needs of love, friendships, belonging and activities (such as work, entertainment) has decreased in urban near-home environments when compared to non-urban or suburban environments. Certainly, this cannot be generalized for every society and every person, and the degree of importance given to neighbors and neighboring changes greatly.

In spite of the changing context and physical settings of social relations, social contact within the near-home environment is still very important. This is particularly valid for people of retiring age and people who are non-mobile, mothers with children under 5 years of age and do not go to work (Scott, 1971). The children grow up in home and near-home environments, having their first socializing experiences at these places. There are still many individuals and societies who have cultural backgrounds that give importance to the communities formed in the residential neighborhood.

At this point, the definition of neighbors and significant characteristics of neighboring should be stated. Neighbor, in the most general meaning is the person who is physically living close to the individual's own dwelling; 'the one next door', extending in urban environments to people who live in the same street, block or multi-story buildings. "Neighboring (broadly defined) involves the social interaction, the symbolic interaction, and the attachment of individuals with the people around them and the place in which they live" (Unger and Wandersman, 1985: 141). This special character of physical closeness separates neighboring from other forms of social interaction, and serves as a support system.

In the neighboring relation, the degree of social interaction ranges from person to person, starting from informal meetings and recognition when passing by. Social support is an important component of neighboring and it can be offered in certain ways (Unger and Wandersman, 1985):

- personal/emotional support: visiting and greeting enhance social belonging and reduce social isolation. The rate of emotional support may differ from casual

interaction and communicating a recognition when seen outdoors, to visiting, to more intimate ties of friendships and kinship.

- functional/ instrumental support: this can be in the form of exchanging help as baby sitting or carpentry, or help in case of emergency, and other forms of problem solving.

- support as informal social control against crime: the residents' collective ability to respond to violations of law within the near-home environment increases to the degree of socialization.

- informational support: the exchanging of information among neighbors while interacting. This exchange may be positive or negative (like gossip).

The relationships between neighbors are influenced by many factors, some of social and some of physical nature. The stage of the life cycle, sex, socio-economic status, the age of the neighborhood and age of residence, and homogeneity among neighbors are important sources that influence the degree and nature of neighboring. Besides these are the physical components. It must be emphasized that, the design of the near-home environment may indeed not be the cause of friendships and positive relationships. Along with it, the factors explained above are influential. However, the design of the environment can facilitate social contact even though it does not generate them (Egelius, 1980; Gans, 1970). The near-home environment should be designed so that the residents have the opportunity to choose their life-styles and the nature of the relationships with neighbors. This requires the physical design to provide a balance between the community and privacy.

Before discussing the issue of social contact in relation to human needs and behavior in near-home environment in more detail, it should be notified that the needs of social contact and privacy are a pair that can not be disconnected from

each other. They are both basic psycho- social needs of the individual, related with the degree of interaction the individual chooses to have with his/her neighbors in the near-home environment. Furthermore, social contact in near-home environments has certain effects on the satisfaction of other social-psychological needs:

1. Social contact in near-home environments is essential for safety. It has been discussed earlier that informal social control can function only in places where there is a familiarity between the neighbors, when the 'neighbor' can be identified and distinguished from the 'stranger'.
2. Social contact is essential for maintaining self-identity. In residential environments, if there is not a mutual recognition between the residents, this may lead the individual to social alienation and anonymity. The human being needs to be recognized as a distinct person among others which is essential for maintaining self-identity. Thus, ignorance is a situation that can cause lack of identity. Some degree of contact is necessary to avoid ignorance.
3. Social contact is essential, as an extension of self-identity, to maintain place identity. It has been explained earlier that one of the sources that nourish place identity and place attachment is a sense of community. This has implications on social interaction and integration.

3.3.3. Social Contact, Human Spatial Behavior and the Design of Urban Near-Home Environments

3.3.3.1. Territoriality and Social Contact

Territorial behavior usually is carried out to regulate and control the social contact with neighbors reaching to the individual's domain. So, environments which

enhance territorial behavior can allow the individual to balance and control his/her relations with neighbors in the form of interaction or maintenance of privacy. Thus, freedom of choice will increase in this case. In the same way, social contact is likely to increase in spaces that stimulate activity, especially when it is collectively used.

3.3.3.2. Personalization and Social Contact

Through personalization, the individuals are able to communicate certain meanings associated with their personalities, life-styles to their neighbors as well as the strangers. Non-verbal communication through the physical environment may present order (such as maintenance of the environment) or disorder (such as trash and dirt in the environment) to the neighbors and this may influence their choices of interaction. The consequences of the absence of personalization on repelling of interaction have been mentioned in the example of the previous section. The presence of it, obviously, may have the opposite effect, as shown by Unger, *et al.* (1985) :

A research study by Becker (1977) has shown that the communication through personalization in a low-income multi- family public housing area in USA has promoted interaction, since it allowed the neighbors to get to know each other indirectly with the recognition of having similar attitudes toward their near-home environments (for example, maintaining the environment). Another research by Greenbaum and Greenbaum (1981) revealed that the individuals with better upkeep of home-fronts and attractive near-home environments seemed more inviting for social contact and were more acquainted with their neighbors. The degree to which the cues of physical environment are capable of conveying the real/true meaning they were meant to express, is important. This depends on many

other factors, such as neighborhood homogeneity (people's tendency to attach the same meanings to the environmental cues), personal characteristics, etc.

3.3.3.3. Crowding and Social Contact

The nature of influence of high density within the urban buildings and urban residential environments on social contact depends on many factors. Size, density and heterogeneity create push and pull forces indirectly on the psychological sense of community, instead of having direct effects. These influence the variables of proximity of dwellings, opportunity and availability of spaces for interaction (Keane, 1991). Thus, the relationship between the physical planning and density should be well solved.

The Pruitt-Igoe housing project can be an example to show the influence of high density on the nature of social interaction, when considered within its societal context, a low-income, heterogeneous neighborhood. The social support, group formation and informal social control in the Pruitt-Igoe project were very low for a number of reasons. One was that, because of the absence of collective semi-public spaces that could provide mutual recognition and familiarity, relationships could not develop. There was a lack of opportunity to interact and lack of available space. Moreover, the density of the building reduced familiarity, and the ability to distinguish the neighbors. This lead to anonymity and lack of social relations.

There are a number of studies arriving at the result that increase in density decreases individual's sense of control in the near-home environment and territorial domain. Large groups of dwellings and apartment buildings have negative effects on residents' feelings of safety, and quality of maintenance (Franck, 1983). This

may have indirect effects on social relations. Furthermore, identification with the near-home environment may also decrease.

On the other side, population size and density may also be viewed as positive factors in residential areas for social contact, since they increase the opportunities for the residents' choices of interaction. In small heterogeneous buildings, the people may be forced to form community of interests elsewhere due to little choice. Discussing the association between density, contact and physical design, Gans (1970) mentions that horizontal adjacency is the requirement for the availability of visual and social contact in higher densities. In apartment buildings, for instance, although, residents who share a common hallway will meet, those living on different floors are less likely to do so, since there is not much opportunity for visual contact. That is why small scale designs are preferred by some designers (Scott, 1971; Egelius, 1980), with a clustering of at the most 25 units around collective spaces that can facilitate activity.

Two additional research are analyzed in the next section that compares the sense of community, neighborly relations and privacy of residents living in high-rise and low-rise buildings in different contexts, one in low-income housing project in USA (McCarthy and Saegert, 1979) and the other in middle-income middle-class projects in Israel (Ginsberg and Churchman, 1985). The effects of building density on social relations and privacy are different in these projects, implying that the success of design depends on the social context. Therefore, a consistency between the density and physical design should be established, considering the specific needs of the residents the environment is to be designed for.

3.3.3.4. The Physical and Functional Distances

The opportunity for contact, the nearness to the others and the available spaces for interaction promote social interaction. Recalling that the increase of contact is likely to increase social interaction and relations, the properties of the near-home environment that allow possible contact should be examined.

Proximity, that is, the nearness of the dwellings, is very influential in increasing social contact. This is because our senses are limited, and contact is meaningful in a small scale. Thus, face-to-face contact is needed for mutual recognition, since facial expressions can be perceived in a maximum distance of 20 meters (Egelius, 1980). Small scales and small distances facilitate contacts.

When considering distances, one should take into account the physical distance and the functional distance. While physical distance is the direct distance, functional distance is formed around certain physical components and characteristics of the environment. Thus, any designation that facilitates audial and visual communication, such as common paths, entrances and windows overlooking the same area, the designation of stairs that increases surveillance etc., are all ways that decrease functional distance and make contact possible (Festinger, *et al.*, 1957). Some design characteristics of near-home environments consider functional distance while others do not. Examples are given to analyze the relation between the physical and functional distances in a near-home environment and social interaction.

3.3.4. Research Examples

3.3.4.1. Distances, Social Contact and a Research in Massachusetts

A research was carried out in 1950s searching for the physical influences on the formation of informal face-to-face groups in two projects housing students on the campus of the Massachusetts Institute of Technology (Festinger, *et al.*, 1957). Although the residential projects are low density and are not 'urban ', the research is important since it was the first one studying the relationship between neighboring and the near-home environment.

The first project is Westgate, consisting of 100 single-family, one story houses clustered around nine open courtyards. The second was built about the same time adjacent to the first, named Westgate West, consisting of 17 two-story buildings housing five dwellings on each floor (Fig. 10).

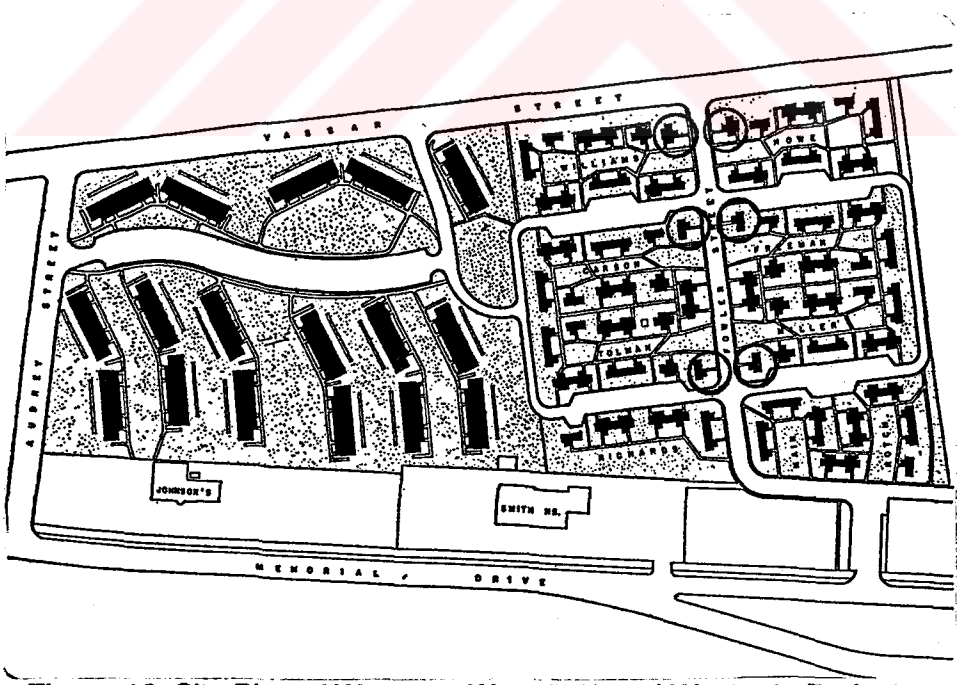

Figure 10. Site Plan of Westgate West (left) and Westgate Projects.
From Leon Festinger, *et al.*, *Social Pressures In Informal Groups*. 2nd ed.
(Ca: Stanford University Press, 1967) 14.

The high degree of homogeneity of the residents eliminated influencing variables, such as age (ranging between 20 and 35), social status, education, lifestyles and marital status (they were all married veteran students). The length of residences of the people were also similar. The researchers could find the possibility to analyze the formation of groups and forms of social contact.

A part of the study was concerned with the effect of the physical and social distances in both projects on friendship formation. People were questioned what three people in Westgate or Westgate West they met and interacted most. Then the distribution of these choices according to distances within the courts or the apartment buildings was calculated.

It was found in the Westgate West buildings that the greatest percentages of the choices were of next-door neighbors, and this percentage decreased as the physical distances the neighbors increased. Even small differences in the distances influenced socializing. In fact, 44 percent of the choices made were of the people living on the same floor with the respondent. However, only 22 percent of choices were made between floors. The physical distance between the floors also seemed to be influential on choices.

The influences of physical difference on Westgate courts were harder to obtain due to the planning of the houses. Functional distance as well as physical distance would be effective on friendship formation. "Choices are again categorized according to the units of distance separating the house of the person chosen from that of the person choosing" (Festinger, *et al.*, 1957: 42). Again, most of the choices were given as next-door neighbors, decreasing as the distance between the dwellings increased.

Going outside the small neighboring units of the courts and apartment, similar results were found between the physical distance and the choice of people. For example, more choices were given by the individual living in Westgate within his/her own court, then adjacent court, then other courts. Thus, in both projects, as the physical distances increased, the people that were most seen socially decreased.

In order to study the relationship of functional distance and social group formation, the Westgate court houses were analyzed, comparing the choices given by the residents of the two houses situated at the end of the courts; to the other houses (the houses circled in Fig. 10). This was due to the different situation of these houses which were facing the street, making possible to reach the homes without entering the court, and having a chance to sit and work in the garden and front porch without having a passive contact with the court neighbors. A total of six houses in such a position were compared with the rest of the houses and the expected result was obtained. The number of court neighbors that the end-house residents chose was less than the others. That is, the functional distance affected the court neighbors such that, they formed their friendships from their court neighbors more than the people at the end. A mean number of 1.56 was received by people in dwellings in inner courts, while only 0.60 was received by people living in end houses facing the street.

Studying the influence of functional distance on people's choices in Westgate West apartments, the two dwellings situated at the end of the building's ground floor (nearby the stairs) was compared with the other three dwellings of the ground floor on the number of choices given to the upper floor residents. Since the stairs connecting the floors were in front of them, this was hypothesized to allow more

contact with the upper floor residents enhancing socialization. This also was proved to be true through research. An average of choices given by end dwellings to upper floors was 12, while the other three dwellings was 6.33. The choices that the upper floor users gave to the ground floors were consistent with these findings (Fig. 11).

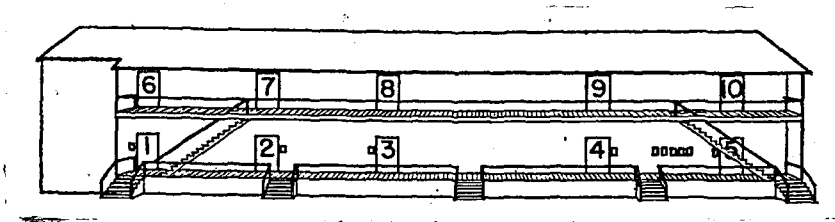

Figure 11. Schematic Diagram of a Typical Westgate West Building.
From Leon Festinger, *et al.*, *Social Pressures in Informal Groups.* 2nd ed.
(Ca: Stanford University Press, 1967) 36.

This research indicates that even small differences in distances, small modifications in the design of near-home environments may influence passive contacts which may later turn into friendships if other factors are available (the most important being homogeneity), in a residential environment.

3.3.4.2. Distances, Social Contact and a Research in Ohio State

A further research has been conducted recently to compare the sense of community in two urban residential buildings in a low-income rental neighborhood nearby the campus of Ohio State University (Nasar and Julian, 1995). Both buildings were three stories and contained 24 units with an outdoor parking behind the building. However, one had a double loaded corridor that connected the dwellings and the other had an inner courtyard surrounded by the units on three sides.

The research evolved from the studies on functional distance and territoriality, hypothesizing that there would be more psychological sense of community in the courtyard building, since it had a semi-public space which facilitated casual and informal social contact, whereas the double-loaded corridor only provided passage. The casual contacts in the courtyard building would provide mutual recognition that could lead to more intimate friendships if there was a homogeneous population; if the residents viewed themselves as similar. The buildings housed students, which provided homogeneity to a degree, although differences may have occurred in friendship formation due to the academic experiences, personality differences.

18 people from the courtyard building, and 14 from the building with corridor (mostly young adults and students) were questioned with an 11-item scale measuring the sense of community with an additional question of the number of neighbors known by name and the number of friends in the building. The results showed that there was a higher psychological sense of community in the courtyard building, compared with the residents in the interior corridor.

This research strengthens the suggestion that collective spaces in the near-home environment enhance a sense of community whereas spaces which lack this property have negative effects on the familiarity, recognition and casual contact among neighbors.

3.4. Privacy

3.4.1. Privacy and Privacy Mechanisms - Definitions

In the previous section, it has been discussed that one of the most important needs of the individual is to contact and communicate with people, to be able to

establish an interaction and relationship with differing intensities, ranging from mutual recognition, casual contact to more intimate relationships. Just as important as this, however, is the need for the individual to control these levels of social contact. That is, besides having the choice and possibility of interacting, the individual needs also to have the choice to control the degree of interaction with the people he/she encounters. This can be called the privacy of the individual. Altman defines privacy as "the selective control of access to the self or to one's group" (1976: 8). This includes the ability of the individual /individuals to avoid unwanted interaction with others. The privacy need and the behavior to achieve it may be acted by an individual or a group (e.g., a family), to another person or persons.

The satisfaction of privacy need is crucial for the psychological health of a person, as well as a healthy communication of the person with his/her social environment. One of the important functions of privacy is to support self-identity. The individual can have a better understanding of the self- the management and positioning of the boundaries between the 'self' and the 'others'. He/she can hence regulate the relationships of himself/herself, having a power and control over them, instead of feeling helpless to achieve the desired level of privacy, which can destroy the individual's autonomy and self respect (Altman, 1976). Privacy also contributes to the emotional release of the individual or group, free from the restrictions and pressures of social roles and customs.

Since privacy enables the individual to control his/her interactions, then positive social contacts with people are likely to occur, since the individual has a chance to avoid negative interactions. Privacy allows the freedom to communicate differently with different individuals and groups.

If the desired level of privacy (the subjectively preferred ideal level) conflicts with the achieved level of privacy (actual condition), this leads to stress. "When achieved privacy is below desired privacy, a condition of crowding or intrusion obtains; when achieved privacy is greater than desired privacy, a state of social isolation exists" (Altman, 1976: 27). The desired levels of privacy may differ from person to person, according to the nature of the people interacting, due to time; continually changing with the "incoming social stimulation from others and outgoing interaction from self to others" (Altman, 1976: 27).

There are many ways to communicate a wish for privacy, that is to show a desired level to interact or to be alone; to show the degree to which one wishes to open himself/herself to the others. These are called 'privacy mechanisms' (Altman, 1976). They may be used interactively, sometimes substituting one with another, sometimes being communicated collectively. Privacy mechanisms may be by verbal behavior (the content showing the desired privacy directly, and/or implications through voice dynamics, dialect, pronunciation etc.); nonverbal behavior (through body postures, manners implying a wish for privacy etc.); and environmental (physical organization and separation of spaces, use of physical devices such as walls, doors, windows, fences, plantation etc.) (Altman, 1976). In addition to the behavioral and communicative mechanisms, time can also be used to regulate privacy, so that particular individuals or groups do not meet (Rapoport, 1976). Certainly, which mechanism is used by whom varies extensively from culture to culture. For example, while speaking in a low voice in an open office may be used as a mechanism in a society, physical partitioning may be used in another.

Environmental privacy mechanisms and related behavioral and spatial concepts should be discussed in urban near-home environments, studying the relationship of the properties of the physical environment and privacy need.

3.4.2. Privacy, Human Spatial Behavior and the Design of Urban Near-Home Environments

Maintaining one's privacy in the near-home spaces is difficult in urban environments since a small amount of space is used by a large number of residents, in multi-family buildings. This decreases the usage of space by each person or family, decreases the distances between areas that are private (the dwelling units and their adjacent spaces) and causes disturbance. High densities in urban residential areas are threat to the needs for privacy, leading to the feeling of stress and crowding. So, the properties of urban environment make 'lack of privacy' more probable. This necessitates a special care to be given to the physical design of the near-home environments, allowing the residents to use the environment for privacy mechanisms. These spaces should be designed so that people are given the choice to have desired level of privacy especially within the dwelling and the private open spaces adjacent to the dwelling (balconies, terraces etc.).

Even though a certain level of flexibility is required in near-home environment for the shaping and modification by residents, to a certain degree, it is best for the environment to satisfy the needs of the residents without obligating them to change their environments due to the fact that it is insufficient to fulfill their needs. So, the basic need of privacy should be satisfied within the near-home environment with the physical design, providing residents with privacy, yet still allowing further transformations by residents.

An analysis of human behavior to achieve privacy and its relation to physical design in the urban residential environments is essential.

3.4.2.1. Territoriality and Privacy

It has been stated that, through territorial behavior, a person has a greater control over the physical and social components of the near-home environment. In order to regulate interaction, and allow or prevent communication with neighbors, one has to have a degree of belonging and control over the spaces adjacent to the home, having identified himself/herself with that space and having the opportunity to defend that space also for safety purposes. Hence, territorial behavior, controlling what goes on in the defined areas of space within the near-home environment tends to increase privacy as well, maximizing the freedom of choice of the individuals in relation to their neighbors in that physical setting. Territorial behavior, then, serves as an instrument to organize various roles and relationships (Prohshansky, *et al.*, 1970) within the near-home environment, permitting the person to defend the near-home space against 'strangers', preventing the physical or visual access of unwanted persons and including 'friends' and contact.

The near-home environment, therefore, should enhance territorial behavior for the satisfaction of privacy; physical arrangements should be made so that there are transition zones from the public street to the private domain of the interior of dwelling, semi-public and semi-private spaces where physical and visual access of people can be controlled by the inhabitants. The spaces should also be flexible since the need for privacy is likely to change through time.

3.4.2.2. Distances and Privacy

It is obvious that, since people with their expressions and postures are perceived from closer distances, the organization of the dwellings is important to provide privacy. In the organization, it has been stated that closer distances (both physical and functional distances) support social contact. However, this also increases the danger of lack of privacy within dwellings. A balance should be provided in the near-home environment to give the residents a choice of contact. For example, windows, balconies, terraces etc., looking towards each other in small distances are likely to disturb the residents since privacy in the dwelling is destroyed by the organization of the near-home spaces. The design should enable the residents to prevent the flow of information available to others when necessary. A degree of flexibility is indeed necessary.

The interior of the dwelling cannot be separated from its immediate exterior, and the transition from public to private outside the home should continue inside in order to satisfy the human needs. Thus, the placement of the living, service and sleeping spaces within the dwelling and their relation to the exterior should be designed so that the most private spaces (such as bathroom and bedroom) are not exposed to the public domain within close distances, distracting visual privacy. Organization of activity spaces adjacent to the home should also consider the interiors. For instance, the construction material is a crucial component that provides sound insulation.

3.4.2.3. Crowding and Privacy

One of the most important issues that is related to privacy is the density in the residential environment, since high densities can lead to the feeling of crowding.

When crowding occurs, the individual feels that the number of people present in the environment reduces his/her freedom of choice, including the freedom and ability to avoid unwanted social and visual interference (Schmidt, 1979). As the number of people that the individual deals with increase, so does the unpredictability and uncontrollability of one another's behavior, including the undesired flow of information to and from neighbors. Then, if the number of people using a near-home space is perceived by the individual as too much, the person will feel crowded, having little control over the space, little control of maintaining privacy and having to limit his/her use of space due to overload. Density and crowding in relation to social contact and privacy are further analyzed in the research examples below.

3.4.3. Research Examples

3.4.3.1. Crowding, Safety, Contact, and Privacy in a Project in New York

A research conducted by McCarthy and Saegert (1979) in a low-income housing project in New York compares the attitudes of residents towards their immediate environments in two different residential building sites, having high-rise and low-rise buildings. The residents were homogeneous in population. The high-rise projects are 14 story towers, 8 units on each floor opening to double-loaded corridors with an elevator in the center, with the total near-home spaces being shared with 110 other families. On the other hand, the low-rise project consists of three story walk-up buildings, with 12 families sharing an entrance, four dwellings on each floor connected by a stair-way. Both building types have a lobby at the entrance where there are the mail-boxes.

Through structural interviews, daily experiences in the common interior spaces of the buildings in terms of control, privacy and safety were questioned. The findings showed that residents in the high rise buildings had a greater perception of crowding and social overload; greater difficulty in social relations; and a weaker sense of control, privacy and safety within their closed near-home environments. The residents of the 14-story buildings felt that the hallways, elevators and lobbies lacked privacy more than the residents of the low-rise buildings (from a 6 item scale with 1 referring too private and 6 referring too public; 5.04 in the high-rise and 3.45 in the low-rise buildings).

An important finding was that there was no difference of satisfaction of privacy need within the dwellings, so the design of common spaces as well as the density of residential buildings were the main determinants of lack of privacy and increase of anonymity in the high-rise buildings. The research also showed that the high-rise building residents were less socially active, with difficulty in forming positive relationships with neighbors on floors other than their own. This may be because greater density weakens the recognition of the neighbors and causes the neighbors to be perceived as strangers.

3.4.3.2. Density, Social Contact and Privacy in High-Rise Housing in Israel

A research example has opposite results which do not prove that as density --amount of space available to a person--increases, crowding also increases, reducing privacy. In certain cases, building density may have no effect on the residents neighborly relations and obtaining their privacy, as discussed in a study of neighbor relations among middle-class women in Israel living in high-rise buildings of different heights (Ginsberg and Churchman, 1985).

A total of 318 women were interviewed in 8-, 12-, 16- and 20-story buildings, in addition to a control group living in 4-story conventional building. The characteristics of the women in terms of age (most of them young; two-thirds under 35 years of age), education and work status (half of the women had higher education while two-thirds were effectively employed), all owning their houses, and all having lived in the buildings between 2 to 6 years.

It was shown in the previous research that, as the building height increased, the number of people known and recognized decreased. The percentage of neighbors that the respondents were acquainted with on the same floor also decreased with building height. This is due to the decrease in a person's ability to distinguish neighbors from strangers with the increase of density.

The research in Israel showed that, in spite of the difference in acquaintance, exchanging help with neighbors were apparent in all buildings. The neighboring and help exchange (centering around children and instrumental needs) decreased with increasing distance, and more neighboring was found on the same floors in all buildings. This again indicates the importance of proximity. On the other hand, a weak relation was found between acquaintance and neighboring. The pattern of helping (70 percent of respondents) and visiting (66 percent of respondents) did not differ between buildings. One important predictor of visiting neighbors was similarity among the residents. So, the women who were willing to form social ties with their neighbors could do so without feeling isolated.

Examining the privacy needs of the residents in buildings with different densities, no difference was found. 90 percent of the respondents had privacy in the building, in spite of their active neighborly relations. Certain verbal, nonverbal and

environmental privacy mechanisms were used to preserve privacy, such as defining boundaries (closing the door etc.), being selective in or avoiding contact, privacy through anonymity (this is more possible in high-rise buildings). Almost one-third of the respondents believed that privacy was easier to maintain in a high-rise than a 4-story walk-up building. A relation was found between the percentage of known neighbors and the nature of the privacy mechanism used. Indeed, people who maintained privacy through anonymity knew fewer neighbors. Besides, residents who maintained privacy through selective contact had less visiting behavior than the others.

One drawback of this research seems to be the absence of analysis of the design properties of building interiors besides the number of floors. Thus, the differences in the organization of dwellings (entrances, placement of windows, number of dwellings per floor and their placement in relation to common interior areas) with respect to the near-home spaces could have been influential on the nature of social relations and privacy for the dwellings.

Thus, even though high density, through excessive contact, may make the residents harder to recognize and know people, therefore preventing sense of community and security to a degree, it may, in certain circumstances, preserve one's privacy through anonymity (Freedman, 1979). So, the effect of the building type will depend on the situation, the context and on the ways people are able to use privacy mechanisms. Hence, "crowding is not dependent directly on density but rather on its ecological (distributional) characteristics and associated with psychological impacts" (Schmidt, 1979: 50)

In the design of residential areas, the balance between the near-home spaces and the amount of people using these spaces (for passage, circulation, activities such as sitting, resting, playing or otherwise) should be reached. The individuals should have a chance to attain their privacy, yet having the opportunity to have casual contacts if they wish, in the near-home spaces.

3.4.3.3. The Design in Conflict: An Analysis of Near-Home Environments in Saudi Arabia Related to Privacy

The degrees of the basic psycho-social needs of human beings are changing cross-culturally. If for some societies, identification through personalization is the most important need for the inhabitants, for another society (or group of people), attaining privacy is essential. An analysis of the near-home environments in Saudi Arabia by Abu-Gazzeh (1995) shows how the environments are insufficient to provide privacy for the residents, causing the residents to modify their environments to satisfy their need.

The identification and indication of boundaries to differentiate between certain spaces of public and private realms are fundamental in Saudi culture. This emphasis is associated with the Islamic principles, as well as cultural norms and customs. Since Islamic religion structures the life-styles of the people, it also influences the use of space in the society. Male and female segregation is appreciated, visual intrusions that can disturb the principles of Islam should be avoided by the people. At the same time, public manners should be arranged with great care, apart from domestic manners. This is crucial in residential environments where the dwelling is the most private domain of the individual, and separation of the public and private domains to obey the sex ethics and manners of

Islamic religion becomes one of the basic concerns of the inhabitants. Gender is the basic organizing concept for the behavior of people and use of space within and outside the dwelling.

Despite the significance given to the privacy need in the context of Saudi Arabia, due to urbanization, different design concepts applied from Western cultures are insufficient to provide required privacy for the inhabitants. The architects' perceptions are different from those of the residents, and the 'modern' buildings do not fit their cultural fabric.

In addition to the small distances between buildings, the vertical density (multi-story buildings) threatens the privacy needs of the residents. At near-home spaces where the public/private domains are indistinct, the residents need to rearrange space by physical separation to distinguish the boundaries between the public and the private. Walls, rules and behavior are all used to separate the private realm. In the dwellings curtains, metal screens, etc., are used to prevent visual access from windows and balconies (Fig. 12). The near-home spaces are modified by the placement of barriers such as fences, walls, blind screens, planting; some even reaching nine meters high (a concrete wall) to block visual access from multi-story buildings (Fig. 12). The residents exert their territorial behavior by controlling the home and near-home spaces, used as a mechanism to preserve privacy. The use of boundary walls around dwelling is a sign of territorial behavior searching for belonging, self-identity, self-respect and privacy.

If the design of near-home environments was fit to the privacy needs, then modifications- which is time and money consuming for the residents as well as

often disturbing the aesthetic formation of the built environment- would not have been necessary.

Figure 12. Materials Used to Maintain Privacy
in the Home and Near-Home Environment, Saudi Arabia.
From Tawfiq Abu-Gazzeh. "Privacy as the Basis of Architectural Planning in the Islamic Culture of Saudi Arabia." (*Architecture and Behavior.* 11. 3-4, 1995) 277, 280.

We can understand that the context of the residential environment and the specific social and psychological needs of the residents that the environment is designed for is of crucial importance. Taking the basic needs as a basis, the social component of the environment should be analyzed extensively, considering the culture-specific needs of the people in order to make correct decisions on the design of living environments.

4. URBAN ENVIRONMENTS IN TURKEY TODAY AND A CASE STUDY

4.1. The Housing Condition in Turkey

The main building types in the urban housing stock of Turkey should briefly be examined. Pamir (1982), taking Ankara as the primary source states that there are three main categories of building types besides the traditional Turkish house which ceases to exist today: *gecekondus* (making up about 40 % of the urban housing stock), the large housing projects (mass housing) and finally, the *apartmans* (making up approximately 50 % in Ankara as well as most other Turkish urban settlements). All these building types have different physical characteristics, in urban and smaller scales. They also have different construction processes. Both of these factors affect the degree to which they are qualified to satisfy the needs of the residents' living in them. It should also be remembered that the socio-economic characteristics residing in various building types also differ. This study will concentrate on the characteristics of apartment housing.

4.1.1. The Evolution of Apartment Housing

We have stated that more than 50 percent of the urban housing stock in most of the Turkish cities is composed of apartments. What is meant by apartments is "... a single building on a single lot , collectively owned and with more than one living unit " (Pamir, 1982: 16). They are usually 5 stories, rising up to 8 and even more in some cases. Through urbanization, living patterns and housing types in Turkey

underwent a radical change. A new system of constructing appeared in the mid-fifties (Pamir, 1982). As a result of urbanization and land speculation, there was a great increase in land values in the city, preventing people to own pieces of land by themselves. In order for the middle-class to own dwellings, flat-ownership was institutionalized, allowing a number of people to buy individual flats of a single building. The increase of land values also caused a decrease in the size of the building lots into narrow 'parcels' which already, by their size and shape, defined the building to be constructed on it (Evyapan, 1986). Thus, today, the building shape is determined by the building coverage on the lot and the total square meters of the constructable area permitted by the building codes.

4.1.2. The Building Codes that Determine the Quality of Near-Home Environments of Apartment Buildings

The formation of urban near-home environments is mainly determined by the building codes. Following is a list of items from these codes that are applicable to building sites:

The Required Minimum Distances from the Building to Lot Boundaries:

Hamuroğlu (1994) explains that, earlier, buildings were constructed as two-stories and the setback distances from sides and back would be taken as half of the building height (3m for each building allowing 6m of total free space). In the 1960s, although buildings were permitted to be built up to 8 stories, this rule was ignored by the municipalities, and the same distance was applied to high-rises instead of half of its height. So now, 6m of open space is left between two buildings, reduced to 4m when 1m balconies are added on each side of the building. On the other

hand, 3 m. is left at the back and 5 m. is left in the front, that is the spaces facing the street.

Building Depth:

In the Ankara Building Codes, the maximum allowable building depth (width) in a building-on-plot basis is 22 meters. This restricts the architects to design buildings that can, for example, integrate open outdoor spaces within the interior of the building or create spaces of different qualities (Özbay, 1996).

Özbay (1996) argues that with the restrictions of the building codes and the economic requirements imposed by the land-owner or the developer, there is little left for the architect to do. In addition to this, the residents also do not have a chance to participate in the construction and planning process, which prevent them to express their needs at this phase. Whereas the users in traditional settlements were involved in this process being able to form the dwellings according to the necessary functions and needs, today there is a gap between the user and the environment in which he/she lives. The only choice left for the resident is to choose the place to live, which is again determined mostly by social and economic factors rather than a consideration of the residents' needs. This is likely to cause problems since the residents' socio-psychological needs are not taken into account during the planning and construction stage, economy being the most important factor.

4.2. The Quality of Urban Near-Home Environments in Turkey Considering Human Psycho-Social Needs and Behavior

After an introduction to the housing condition in Turkey, the quality of the physical characteristics of urban residential environments of *apartmans,* in other words apartment buildings will be focused on. The contents of the analysis will be based

on the discussions derived from the previous chapter, in addition to a number of studies carried out in Turkey.

4.2.1. Interior Common Spaces of Apartment Buildings

Usually, the common spaces within the apartment buildings include ground floor entrance, the stairs and landings, the entrance doors to the dwellings, and sometimes elevators. This is the characteristic of a typical Ankara apartment building. One story houses 2-5 flats, with a total height of 4-8 stories.

The inner common near-home spaces in apartment buildings generally do not allow any activity other than circulation. If analyzed from the point of view of social contact, it can be claimed that they do not encourage sense of community at all. The existence of vertical circulation elements decreases the degree to which neighbors can interact. That is, the individual is likely to meet with the neighbors on the same floor more often. In addition to this, the residents spending more time in the common spaces; the ones living in the upper floors are likely to have more social interaction with neighbors. This has been verified by an interesting research conducted by Le Compte and Yetken (1975), aiming to find out if there is a relationship between certain aspects of physical characteristics in apartment buildings and the distribution of friendship and acquaintance within the building. The effects of variations in the distances between the dwelling units, as well as the public areas of the buildings (entrances, stairs etc.) to the occupants' behavior were studied. The former could be verified: it was found that the distribution of friendship increased as the closeness of two dwelling units increased and as the distance of a dwelling unit from the entrance to the building increased. So the impact of physical distance was clearly observed in the nature of social contact of the residents. However, since there was very little variation in the formation of interior public

spaces of the 14 sample apartments that was chosen, the effect of these on neighborliness could not be studied.

Territorial behavior is argued to increase with the availability of space that stimulates activity. However, the inner common spaces do not exhibit such a characteristic. It should be questioned how sensitive can a resident be to spaces that she/he does not use, except for circulation, spending no time there otherwise.

The first example to multi-story social housing, constructed in Istanbul was apparently different in terms of design from the apartment buildings of today. Completed in 1922, Harikzedegan Katevleri was designed by architect Kemalettin Bey. The housing consisted of four courtyard apartment blocks, with a terrace with open sides under the roof used to dry laundry (Yavuz, 1979). This space was also used for social activities and meetings. The corridors and two staircases were overlooking the courtyard, and the interior organization was such that privacy increased from the center to the exterior. In this way, the rooms were kept away from the more public courtyard. Yavuz claims that the courtyards in the centers, like the roofed terraces, functioned as semi-public common positive outdoor spaces influencing the social relations of the residents.

Slight changes even in common areas of today's buildings, show how the quality of that space can change; this affecting the residents' behavior towards their near-home environment. The highest floors of buildings can be perceived as more private spaces than the lower floors due to the decrease of circulation. A difference in the use of these spaces, in comparison with other floors, can be observed especially if there is a sky-light that enhances the quality of space. Here, the residents are encouraged to carry their territorial behavior to these near-home

spaces, personalizing and feeling responsible for them. They show an affiliation towards the space by placing flowers and plants. Certainly, this can not be generalized to everyone, but it can be claimed that near-home environments, which are more defined, perceived as more of one's own, give the residents a chance to identify and personalize these spaces. However, even such minor design properties that can affect the socio-psychological life of inhabitants are lacking in the majority of apartment buildings.

4.2.2. Open Spaces Around Apartment Buildings

The factors that determine the near-home exterior environments of apartment buildings have previously been explained. There is a great disproportion of the buildings to the open spaces near them, preventing these spaces to satisfy any need of the residents. A research by Evyapan (1986), conducted on an actual urban site in Yenisehir, Ankara reveals this fact. Documents were collected on the density of the building activity on the block, where the constructions of a few residential buildings were initiated in 1927. Plans, sections and elevations on the block were collected and documented in the years 1939, 1959, 1977.

The results show a drastic change and loss in the three types of open spaces within the block: the backyards, the side spaces between two adjacent buildings and the spaces between building-street-building. It is observed that there has been an extensive increase in building activity, in the horizontal and vertical direction allowed by the building codes, thus leaving no outdoor space available for the inhabitants to carry out any significant function (Evyapan, 1986). This is especially apparent in the side spaces between adjacent buildings. One last fact that the research shows is, in spite of the fact that buildings have increased in size (vertically and horizontally), the services have remained constant. So, services

such as roads, sidewalks, parking areas can not fulfill the needs of the increased buildings and their dwellers.

The most disturbing outcome of this arrangement is the formation of unused outdoor spaces especially between two apartments, and sometimes at the backs of the apartments (depending on the size and shape of the block), and the decrease in the outdoor spaces of the residential blocks. It is even more bothersome today, since a building activity goes on in every part of the city to enlarge or heighten the buildings.

Besides this, in contrast with traditional settlements where there was a distinct separation of zones of privacy--the street and the block--by use of plantation and walls, in the plans today, the streets are formed by isolated facades with the side-spaces that neither belong to the street nor the buildings. In the traditional settlements, the street was public while the court, private; whereas today, these spaces have a lack of definition of privacy or publicity. And most importantly, they do not encourage the inhabitants' taking responsibility for them. They are either used as service paths to the backyards, entrances to the buildings, sometimes a patch of greenery, or just left as they are, which then are filled up with garbage. Finally, these narrow spaces prevent sunlight to reach the lower stories of the apartments.

The backyards in the block are again treated in a similar fashion. The land is divided in accordance with the limits of the parcel sizes, preventing the collective use of residential outdoor space, that can be benefited by the surrounding apartments. The function is usually determined by the size, which can be as small as 6m , or left as it is, like the in-between spaces. Usually, though, they are used

as parking, because the parking spaces available in the neighborhood are insufficient, for such highly dense areas. Luckily, if the land is large enough at the back of the buildings (and if there is enough money), greenery is provided.

4.3. A Research on the Effects of the Design of Near-Home Environments of Two Apartment Buildings on the Psycho-Social Needs of the Residents

In order to investigate the relationship of the physical environment to the psycho-social needs of people, a longitudinal research has been conducted between 1995-1996 in two apartment buildings in Ankara. One of the aims of the research was to understand the intensity of the basic psycho-social needs of the residents in their near-home environment, and to what degree the fulfillment of these needs was important for the residents. Besides, the investigation questioned the extent to which the near-home environment was able to satisfy these needs. At this point, of course, the characteristics of the physical environment were of crucial importance, and difference in design characteristics was expected to affect the satisfaction of needs.

It should be clarified that the research was conducted questioning a limited number of people with similar socio-economic characteristic. The results should be evaluated considering that residents' needs and behavior towards their near-home environment may differ from one place to another. However, generalizations can be made to a certain extent for the residents having similar social characteristics with those surveyed, and living in similar physical environments.

4.3.1. Research Questions

The research was a non-experimental survey research investigating the following descriptive and comparative questions:

1. How important is the satisfaction of psycho-social needs of the people living in two apartment buildings in Ankara, within near-home environment?
2. Can the near-home environment in these buildings satisfy the psycho-social needs of the residents?
3. How do different design features of spaces (namely, interior common areas and exterior spaces around buildings in the near-home environments affect the satisfaction of psycho-social needs of the residents and related behavior?

4.3.2. Methodology

The survey started in 1995. Initially, the main aim of the study was to find out the effect of different design properties of interior common spaces of apartment buildings on the inhabitants' activity and social interaction with each other as well as the degree of knowing each other. This has been referred to as the first phase of the research. Two apartment buildings, a standard one without a designed semi-public space and one with a modest interior courtyard, were to be compared. In 1996, with the depth of the subject matter, the research is expanded to consider the design characteristics of both the interior and exterior of the buildings (all of the near-home environment), as well as investigating the satisfaction of safety, identity and privacy, besides social contact. This has been referred to as the second phase of the research.

The first building chosen is on Halit Ziya street, no:6, Çankaya, having an interior courtyard (Fig. 13 and C.1- C.10 in Appendix C). It contains 20 dwelling units,

one being empty and another being an office. The building, having the advantage of being constructed in two parcels and thus occupying a large area, is situated in between two buildings with minimum set- back distances of 6 meters. One side is used for building entrance, while the other side is an extension of the garden that faces the street in front of the building. The large space at the back of the building, mainly used as a parking area, also includes plantation, seating elements and a ping pong table. The construction of a high-rise residential project is in progress, overlooking this area.

After the selection of Halit Ziya apartment building, various buildings were investigated to find another building that is similar to the one on Halit Ziya street, with respect to the number of inhabitants and the socio-economic status of the people. However, the interior common areas of the second building should be minimum, without any special characteristic such as a courtyard, extra spaces for additional activities, etc. A building with these characteristics was found on Yeşilyurt street, no: 36, Aşağı Ayrancı, which consists of 18 dwelling units (Fig. 14, and C.11-C.20 in Appendix C). Differences also exist in the exterior. Two sides of Yeşilyurt building faces the street, where gardens occur, with the entrance facing Yeşilyurt street. The other two sides, perpendicular to each other, face other buildings, one with a minimum set-back distance of 6 meters. The other one is further away, leaving just enough space for parking for the residents of the two apartment buildings, separately.

For clarity and convenience, during the interviews, a schematic plan of the buildings with four adjacent sides, labeled as A, B, C and D, were handed out to the respondents (Fig. 13-14). Zones that were similar in terms of use, area or orientation were identified with the same letters in Halit Ziya and Yeşilyurt, for

possibility of comparison. Thus, area A signifies the entrance (Fig. C.3, C.12 in Appendix C), B signifying a planted garden facing the street (Fig. C.1, C.4 and C.11 in Appendix C), C is an area that has different usage for the buildings, but similar in having a width of 6 meters (Fig. C.5 and C.14 in Appendix C), and D, the largest area adjacent to both buildings, used as a car park (Fig. C.6 and C.16 in Appendix C).

During the first phase of the research in 1995, 30 people were interviewed from the building on Halit Ziya street, and 25 from the building on Yeşilyurt street. Although 25 people were interviewed from each building in the following phase of the research in 1996, some of them were not the ones who were interviewed in the previous year, due to the unfortunate reasons of death, refusal to talk and moving out. 18 people from Yeşilyurt and 16 people from Halit Ziya buildings were the same as the ones interviewed the previous year .

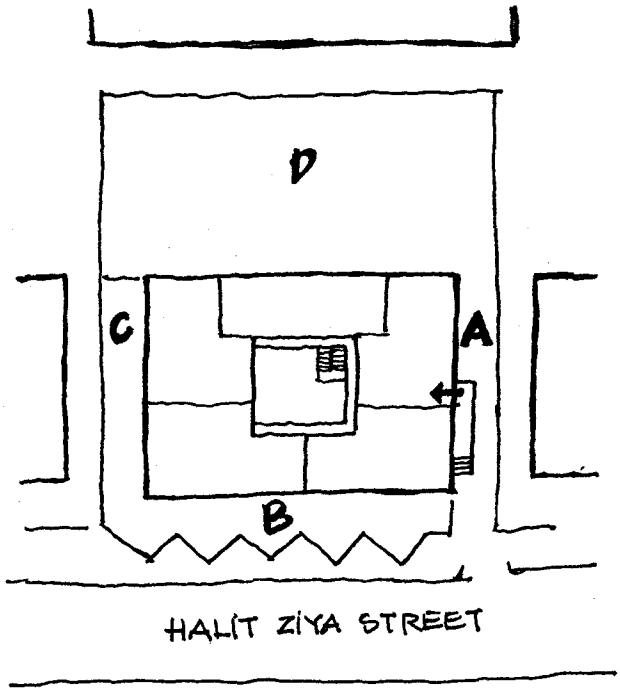

Figure 13. Schematic Site Plan of Halit Ziya Building

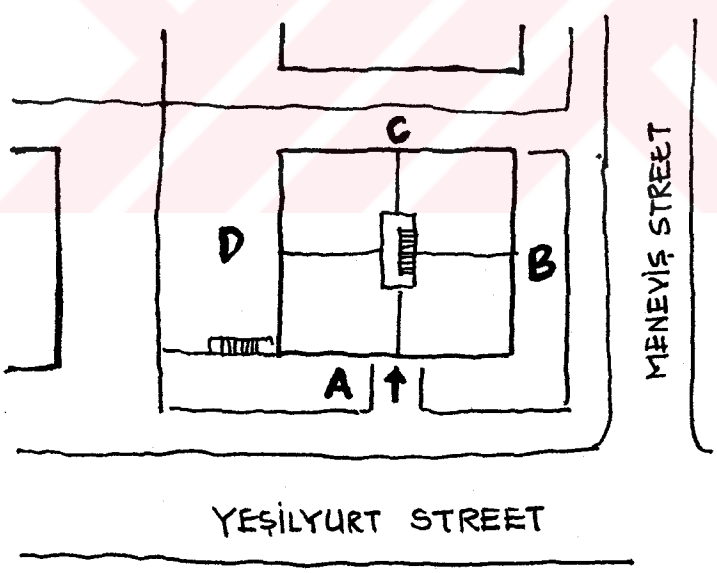

Figure 14. Schematic Site Plan of Yeşilyurt Building

4.3.3. Hypotheses

1. The physical properties (design features) of near-home environment influence the residents' satisfaction of psycho-social needs, and related behavior, accordingly.
2. Variation in the design features of spaces in the near-home environment influence the residents' needs and behavior at that space differently.

Variables under study: The dependent variables may be listed as safety, identity, social contact and privacy, The independent variables are the different design features of near-home environments in buildings, such as :

- distances of spaces to the home, the street and building to building distances
- quality of the spaces in terms of availability for activity and usage
- placement of space with respect to home/ building/ street
- physical and visual accessibility of spaces from public spaces (the street) and from the private spaces (from the dwelling)--quality of the space in terms of design, fixed-feature elements, the semi-fixed feature elements (fence, flowers etc.), lighting.

In terms of design features, the interior common area of Halit Ziya building and Yeşilyurt building may be compared with each other. Besides, the four different areas adjacent to the two buildings may be compared with each other and with the building interiors.

In order to test the hypotheses in the light of the analysis of the relation of human needs to the physical near-home environment in the previous chapters, 28 questions were asked in the second phase to the interviewees through a questionnaire. The hypotheses were further distilled through the preparation of the

questionnaire (see Appendix B). Besides, the results of relevant questions from the first phase, concerning use of spaces and social contact in the near-home environments, were also included (see Appendix A for questionnaire).

Initially, the degree of importance the residents gave to the satisfaction of each psycho-social need has to be measured, by questions 1, 10, 17, 24 (second phase). It is fundamental to understand the priority of the needs of the sample group, if we wish to design near-home environments according to their needs.

Examining the relationship of safety need to the environment, it is believed that territorial behavior increases as spaces are closer to the home, so, differences are likely to exist between the exterior and interior spaces of both buildings. Differences in territorial behavior and feeling of safety may also exist between the inner spaces of two buildings, since there is the opportunity of natural surveillance in the courtyard building, but not in the other. In the same manner, differences in territorial behavior and safety may exist between the varying spaces adjacent to the home because of the use, activity, quality , closeness of dwelling to the area, etc. These were tested with questions 2-6. Questions 7 and 9 were asked to search for the social and physical factors that affected the safety of the residents (second phase).

For the analysis of satisfaction of identity need, certain types of human behavior; expression of oneself within the environment, maintenance of the environment and the environment being in harmony with the residents' character were examined (questions 11-13, second phase) in order to form a main identity index. Besides this, the degree of personalization of spaces through plantation and maintenance was questioned (questions 14-15, second phase) with the hypothesis that

personalization may exist only if appropriate space is available. Sufficiency of spaces within the near-home environment for various activities was also examined (question 16, second phase), since reflection of identity occurs through use of space. The use of interior spaces in the past and present had been analyzed in the first phase of the research (questions 17-21, Appendix A). Identity is argued to increase if a particular space is sufficient for, and used for more activity, so differences between the exteriors and interiors of the two buildings are likely to exist.

The influence of the physical environment on social contact was measured with a variety of questions in both phases of the research, the first phase concentrating on the influence of the physical design of interior spaces. Thus, a question examined if the residents thought the physical design had an effect on their social relations (question 16, Appendix A). Furthermore, the number of people known to respondents in the building (question 11), as well as the number of people seen a day (question 14) was asked, to compare the differences in the interior design of two buildings (Appendix A). The second phase studied the influence of the exterior environment (questions 17-23, Appendix B). It was assumed that physical and functional distances affect residents' degree of social contact; whereas the presence of a courtyard in Halit Ziya building interior encourages social contact and affects the social relations positively, since it provides positive functional distance, surveillance and activity opportunities. In the same way, differences between exterior spaces around the buildings may also exist due to use of space and existence of fixed feature and semi-fixed feature elements.

Finally, the satisfaction of the privacy need of the residents was measured related to the distances of adjacent buildings, since, as adjacent buildings to the dwelling

are closer, privacy is likely to decrease. Furthermore, residents in the Halit Ziya building were believed to have less privacy due to certain spaces looking towards each other in the courtyard, compared to the Yeşilyurt building (questions 25,27, second phase). Exploration of privacy mechanisms of the residents was through questions 26 and 28 (second phase).

4.3.4. Findings

The data collected from the questionnaires are presented in different ways according to the type of the questions. While some are only given as frequencies, others are given as mean distributions. The majority of the findings are obtained from the second phase of the research, whereas some of the results of the first phase that are found relevant are also presented.

The findings comprising mean distributions were subject to independent sample t- tests, testing the null hyphotesis that the mean responses of two apartment buildings were equal. The alternative hypothesis was that there was a difference between them, depending on the differences in physical design of near-home environments of them. The mean values that are found significantly different from each other, at the level of $p \leq 0.01$, are mentioned during the analysis of the findings.

4.3.4.1. Respondent Characteristics

Table 1 presents the respondent characteristics obtained from both phases of the research. If the table is examined, it can be seen that the male-female distributions within the two buildings are similar. Likewise, the average economic conditions of the residents of two buildings are similar. However, there are certain

differences in the age distribution, and therefore the education and working condition. While more than half of Yesilyurt building residents are young adults with very young children, almost half of the Halit Ziya building residents are older adults with children that are teenagers or older. On the other hand, in Halit Ziya building, there are more people who have lived more than 10 years in the building than in the Yesilyurt building. This has been taken into consideration during the analysis of the findings, where it is found relevant.

Table 1. Respondent Characteristics

	FIRST PHASE (1995)				SECOND PHASE (1996)			
	Yeşilyurt		Halit Ziya		Yeşilyurt		Halit Ziya	
age distribution	N (25)	%	N (30)	%	N (25)	%	N (25)	%
10-18	4	16	4	13.3	2	8	5	20
18-34	13	52	9	30	14	56	7	28
35-54	7	28	12	40	8	32	11	44
55-	1	4	5	16.7	1	4	2	8
sex distribution								
male	8	32	11	36.7	9	36	9	36
female	17	68	19	63.3	16	64	16	64
years lived								
0-4 years	16	64	10	33.3	13	52	11	44
5-9 years	5	20	3	10	6	24	4	16
more than 10 years	4	16	17	56.7	6	24	10	40
edu. and work con.								
stu., middle / high	4	16	4	13.33	2	8	5	20
student, university	1	4	3	10	-	-	5	20
high, working	2	8	-	-	6	24	3	12
high, housewife / ret.	2	8	4	13.33	2	8	-	-
univ., working	12	48	13	43.33	12	48	8	32
univ.,housewife / ret.	4	16	6	20	3	12	4	16
econ. level (per person/per month)								
less than 5 million TL	1	4	-	-	1	4	-	-
5-14 million TL	13	52	17	56.67	16	64	18	72
15-24 million TL	10	40	10	33.33	6	24	4	16
more than 25 million TL	-	-	2	6.67	2	8	3	12
missing cases	1	4	1	3.33	-	-	-	-

('N' indicates the number of respondents, '%' indicates the percentage of respondents to give a certain response.)

4.3.4.2. The Importance Given to the Satisfaction of Needs

Analyzing the importance given to the satisfaction of safety, identity, social contact and privacy is believed to be meaningful since, these results are- or should be- the determining factors that a designer should consider when designing home environments. Thus, as previously emphasized, the priority of needs may differ from person to person, and from society to society, this having its aftereffects on the physical environment. So, the question was rather exploratory, aiming to find out the priorities of the selected sample group. Table 2 presents the mean values of the responses given in a scale of 1 to 5.

Table 2. Importance Given to the Satisfaction of Psycho-Social Needs

	Yeşilyurt	Halit Ziya	Total Mean
privacy	4.84	4.84	4.84
safety	4.72	4.88	4.80
social contact	4.00	4.40	4.20
identity	3.56	3.87	3.71

(minimum-maximum possible scores for importance were 1 and 5)

In general, satisfaction of all the psycho-social needs seems very important for the whole sample group. The mean differences between the two buildings were not found significant, the findings for the whole sample group were analyzed to examine if there were significant differences between the importance given to the fulfillment of needs. The importance given to safety and privacy are found significantly higher compared to identity and contact.

As presented in Maslow's basic needs hierarchy (1987), safety is of second degree importance after the satisfaction of physiological needs. This argument is also evident in the above finding. What is particularly interesting, however, is the importance given to privacy, which seems as important as the satisfaction of safety. The sensitivity towards achieving privacy in today's urban environments is

believed to have its roots in our history. Hence, the traditional Anatolian dwellings, which are introvert in nature, were formed to achieve maximum privacy within the dwelling. Although this can not be generalized to the whole population, the findings reveal that the priority given to maintenance of privacy is parallel to that of the Turkish people in the past.

4.3.4.3. Safety

There were a number of questions to measure the relation of physical design and safety in the buildings. Initially, a safety index was obtained from the responses given to questions 2,3,4 and 5 (questions 2 and 3 were combined during the interviews). These questions investigated the identification of the neighbors from outsiders, belief of the residents that a person would warn a suspicious stranger, and if the resident thought the area was safe. Table 5 presents the final question separately, while Table 4 shows if residents think the design features of the near-home environments have any effect on safety.

Table 3. Satisfaction of Safety in the Near-Home Environment

	Yeşilyurt	Halit Ziya
safety index	mean values	
interior	3.36	4.04
exterior :	3.41	3.91
A	3.43	3.77
B	3.36	3.83
C	3.37	3.95
D	3.52	4.08

(minimum-maximum possible scores were: 1 and 5)

All of the mean values (namely, safety index for interior spaces, areas A, B, C, D, and the total mean for exterior spaces) in Halit Ziya building are found significantly more than Yeşilyurt building, in Table 3.

Table 4. The Effects of Physical Planning and Design on Safety

	Yeşilyurt	Halit Ziya
"does design affect safety?"	mean values	
interior	2.04	2.84
exterior :	2.22	2.38
A	2.30	2.28
B	2.26	2.32
C	2.10	2.38
D	2.15	2.56

(1 indicating negative, 2 indicating no, and 3 indicating positive effect)

In Table 4, the mean values for the interiors are found significantly different from each other. So, Halit Ziya building residents believe that the physical design of the interior spaces as well as area D, have more positive effects than Yeşilyurt building residents, however, the other adjacent spaces do not differ.

Table 5: Finding an Area Safe

	Yeşilyurt	Halit Ziya
" find area safe?"	mean values	
interior	3.08	4.04
exterior :	3.41	3.85
A	3.44	3.80
B	3.52	3.92
C	3.30	3.92
D	3.26	3.79

(minimum-maximum possible scores were: 1 and 5)

As seen in Table 5, the mean values for safety in interior and in area C of Halit Ziya and Yeşilyurt building are significantly different from each other. When the correlation between the variables presented in Tables 4, 5 and 6 are examined, the results are reveal that, especially for interior spaces, there is a positive correlation between the effect of physical environment on safety, and perceiving the space as safe in the interiors at 0.67 (for the whole sample group of 48 people, $p \leq 0.001$). In the same manner, the perception of exterior spaces as safe, and the positive effect of the physical design on safety are found correlated at

0.41 (for 48 people, at $p \leq 0.01$). Tables 6-10 present the reasons given by respondents to find the near-home environment safe/ unsafe:

Table 6. Reasons to Find the Near-Home Environment Safe / Unsafe in General

	Yeşilyurt		Halit Ziya	
"safe because..."	N(25)	%	N(25)	%
safe neighborhood	13	42	17	68
know people near-by	4	16	12	48
policeman / police patrol at corner	3	12	1	4
"unsafe because..."				
doorkeeper inadequate, no guard	3	12	0	0

Table 7. Reasons to Find Building Interiors Safe

	Yeşilyurt		Halit Ziya	
"safe because..."	N(25)	%	N(25)	%
audial and visual access in the court and from kitchen	-	-	17	68
locked entrance door/speaker	-	-	9	36
lighting at ent. door	-	-	4	16
court: 4 sides closed, safe even at night	-	-	4	16
safer at high story	4	16	-	-
having a door at ent.	2	8	-	-
having closed house doors at interior	1	4	-	-
no place to hide	1	4	-	-
people can intervene to places they see	1	4	-	-

Table 8. Reasons to Find Building Interiors Unsafe

	Yeşilyurt		Halit Ziya	
"unsafe because..."	N(25)	%	N(25)	%
door open/no control of access/no lock, al.	11	44	-	-
door open/misuse of speaker system	-	-	3	12
too private/everyone closes door/no possibility to survey	2	8	-	-
ground floor	1	4	1	4
can hide at niche	-	-	1	4
dark	1	4	-	-

68 percent of Halit Ziya residents believe that the natural surveillance provided by the courtyard strengthens their feeling of safety. This is consistent with Newman's (1972) findings who has claimed that natural surveillance is one of the basic design characteristics that provide a defensible space. Five of the Halit Ziya residents stressed that, their neighbors' visual access to their own dwelling door make them feel more comfortable when they leave the house temporarily, with the belief that there will be an intervention to a criminal activity. Likewise, informal social control is also believed to occur by the aid of noise coming from the court.

An answer of one respondent in Halit Ziya building , presented in Table 8 ("can hide at niche") needs further explanation in order to illustrate the influence of minor design details on feeling of security. Living on the ground floor, the respondent's entrance door is placed within a niche, which prevents her to observe the entrance door directly from her dwelling door (Fig. 15). Although not occasionally, this gives her fear when entering her own house, since she assumes someone may hide at that niche without being seen. Similar responses were given by Pruitt-Igoe residents, as can be remembered. We can understand from this example that, at environments where safety is a major concern, spaces should be designed so that people can be observed from everywhere, allowing no place to hide.

Figure 15. The Dwelling Entrance Placed in a Niche in Halit Ziya Building. Plantation can also be observed in the courtyard.

Control of physical access is the major problem of Yeşilyurt residents. Even though there is a symbolic barrier, the door, since it is not locked, they can not control the access to the interior. Although this gives them insecurity, financial problems prevent the solution. In contrast, the locked door and the speaker-system in Halit Ziya building provide security for it's own residents. The level of the dwelling is also a factor that influences some of the Yeşilyurt residents' safety, with the higher-floor dwellers feeling safer.

After an examination of the influence of interior physical design on safety, the building exteriors in terms of safety are presented below:

Table 9. Reasons to Find Building Exteriors Safe

		Yeşilyurt		Halit Ziya	
reasons to find exterior safe:		N(25)	%	N(25)	%
all	garden provides increased distance from home to str.	4	16	1	4
all	garden fences/walls	2	8	7	28
all	no place to hide/no unsurveyed areas	2	8	2	8
all	not too private/ enough publicity and openness	3	12	-	-
all	lighting at front of market	-	-	4	16
all	doorkeeper's house looks to garden (survey poss.)	-	-	2	8
D	having a garage for cars	4	16	-	-
D	lighting of garage	-	-	4	16
D	one controlled entry	-	-	3	12
D	possibility to survey from houses	1	4	2	8
C	possibility to survey from houses	1	4	-	-

Table 10. Reasons to Find Building Exteriors Unsafe

		Yeşilyurt		Halit Ziya	
reasons to find exterior unsafe:		N(25)	%	N(25)	%
A	entry door would better face street	-	-	1	4
B	too private/ low level and ivy prevents visibility from outside	-	-	2	8
C	entry to garage from backside prevents visibility from outside	1	4	-	-
D	no extra alarm/ lock	1	4	4	16
D	dark (for Halit Ziya, light does not work)	2	8	2	8
D	not visible from outside	1	4	2	8

As examined from the tables above, the degree of publicity of certain areas of use in the outdoors is a factor that influences the perception of security. For example, a Halit Ziya resident wishes the entrance door face the street instead of area A, since, if a threatening incident occurs, people from the more public street can intervene. Thus, surveillance from the house windows as well as from the streets is

crucial for the residents in general. Lighting, openness, orientation of spaces related to windows and street are determinants of peoples' safety. The amount of access to semi-private areas, the presence of symbolic and real barriers (such as garden walls and fences) are also influential.

The following table presents additional precautions taken within the dwelling to acquire safety. The results are inadequate, since some people did not need to take additional precaution because it was taken by the home-owner before them. These differences could not be reflected to the table.

Table 11. Precautions Taken at Home to Acquire Safety

	Yeşilyurt		Halit Ziya	
"prec. at home?"	N(25)	%	N(25)	%
extra chain-lock/ stronger door	10	40	9	36
wired window	6	24	8	32
can see passers-by	3	12	0	0

4.3.4.4. Identity

Since identity can be expressed in many ways, the investigation of satisfaction of identity need was through a number of questions concerning reflection of identity and personalization of spaces, use and sufficiency of spaces.

Firstly, an identity index was obtained (Table 12) by the combination of the answers to three variables:

1. There are some things in this area belonging to me, I can express myself here.
2. This area does not have anything that disturbs me or my lifestyle, it is in harmony with my character.
3. I am involved with/pay attention to the cleanness and maintenance of this area.

Table 12. The Satisfaction of Identity in the Near-Home Environment.

	Yeşilyurt	Halit Ziya
identity index	mean values	
interior	3.06	3.66
exterior:	3.05	3.38
A	3.20	3.34
B	3.12	3.34
C	2.91	3.31
D	2.98	3.52

(minimum-maximum possible scores are 1 and 5)

It is observed from the above table that, that in both exterior and interior common areas, Halit Ziya building residents can identify themselves with the environment more than Yeşilyurt building residents (the differences in the interior spaces, as well as area D are significant). This may be due to the differences in the physical environment. However, it is also found out that there is a correlation between identity index and number of years lived in the dwelling at 0.41 ($p \leq 0.01$). Considering that the number of Halit Ziya residents having lived in the apartment building more than 10 years are more than Yeşilyurt residents, it can be expected that the identity index mean is greater in Halit Ziya. On the other hand, besides identifying oneself and expressing oneself in a space, the use of spaces and sufficiency of spaces were also examined, which are parallel to the findings of identity index.

The main shortcoming of the research was that the questions asked to measure extension of identity in the near-home environment was inadequate. In both buildings, rather than a direct interaction with the physical environment, dwellers make their comments on yearly meetings; making suggestions and warning the doorkeeper or the building director if they wish. They have also an indirect intervention to the physical environment by their financial contributions. As a result, the building director and the door keeper are responsible to carry out the

decisions made in the meetings (for example, cleanness, maintenance, plantation of a certain area). This is also the main factor that determined the answers given to the question of personalization, as presented below:

Table 13. Personalization of the Near-Home Environment

	Yeşilyurt		Halit Ziya	
personalization	N(25)	%	N(25)	%
Interior	1	4	3	12
A	7	28	1	4
B	3	12	2	8
C	-	-	2	8
D	-	-	2	8

Personalization was defined as maintaining the area by the respondent or plantation-flowering of an area by the respondent. Thus, the direct interference with space instead of indirect interference (by door keeper, or management, or financial aid) was considered in this question. In both buildings, plantation within the building is observed, although in Halit Ziya building, the available space is more, reflecting itself on the degree of plantation (Fig. 15-17).

Figure 16. Personalization by Plantation in Halit Ziya Building

Figure 17. Personalization by Plantation in Yeşilyurt Building

The following two tables present the usage of interior spaces in the past and today.

Table 14. Usage of Interior Spaces in the Present

	Yeşilyurt		Halit Ziya	
is common area of bld. used besides entry/exit and post boxes?	**N**	**%**	**N**	**%**
used for at least one or more activity	5	20	14	46.67
used for no other activity	19	76	16	53.33
activities carried out				
growing flowers	-	-	5	16.67
chatting/ talking with neighbors	6	24	8	26.67
bulletin board	-	-	2	6.67
sitting/ resting	3	12	6	20
playing (children)	1	4	4	13.33
taking short walks in corridor	-	-	1	3.33
why certain act. aren't carried out				
not enough time	9	36	6	20
no need / too old	9	36	16	53.33
not enough space	13	52	3	10
weak relationships with neighbors/ not proper circumstance	4	16	2	6.67
for flowers: not enough sunlight	3	12	4	13.33
conflicts with personality to sit in front of door	-	-	1	3.33
bad smell	1	4	-	-
not replied	1	4	-	-

(results are obtained from the first phase of the research)

More activities are carried out in Halit Ziya apartment, especially the activity of growing flowers. As explained previously, teenagers use the courtyard for sitting and resting, while the residents of the upmost floors use the corridor ends in the summer when the court is cool and pleasing (Fig. 18). When observing the reasons why the space is not used, while about half of the Halit Ziya residents find no need for any activity, about the same amount of residents in Yeşilyurt building claim that space is not enough for any other activity than circulation.

Figure 18. The Corridor Ends are Used for Sitting in the Summer

Table 15. Usage of interior Spaces in the Past

	Halit Ziya		Yeşilyurt	
were com. area of bld. used besides entry/exit and post boxes before?	N (17)	%	N (4)	%
used for at least one or more activity	14	82.35	-	-
used for no other activity	3	17.65	4	100
activities carried out				
growing flowers	7	41.17		
chatting/ talking with neighbors	8	47.06		
sitting/ resting	7	41.17		
playing (children)	7	41.17		
growing baby	1	5.88		
why certain activities aren't carried out at present				
not enough time	1	5.88		
no need / too old to play	7	41.17		
weak relationships with neighbors because of moving out of old neigh.	2	11.76		
for flowers: not enough sunlight	4	23.53		
pool at the center of court is taken out	3	17.65		

(results are obtained from the first phase)

The question, the findings of which are presented in Table 15, were asked only to residents having lived in the building more than 10 years. That is the reason of the disproportion between the number of respondents in the two buildings. In the past, the court was much more efficiently used. It is obvious that the reason for spaces not being used currently for play is that the dwellers became older. Yet, the adults have stated that during the first years of residence (21 years ago), all the old neighbors had 'tea parties' around the pool in the court. However, recently, the pool was demolished since it was difficult to maintain and found unhealthy for the children, and the departure of friends as well as lack of time caused this activity to cease. Finally, through the interviews held this year, it was learned that the director is planning to place a pool in the court again, if economic problems are solved. This indicates the change of the activity patterns in a space due to the change in the ages and social characteristics of the users. We can see that maintenance problems and time limits as well as friendship degree of neighbors have effects on the degree of usage of available common areas. For buildings without such common areas, such as Yeşilyurt building, the lack of space is the leading limitation.

Tables 16-18 present the views of residents in terms of sufficiency of spaces for various activities:

Table 16. Sufficiency of Interior Spaces for Various Activities

	Yeşilyurt	Halit Ziya
Suff. of int. for:	mean values	
plantation	2.44	3.60
chatting	2.44	3.76
resting	1.80	3.16
playing	2.60	2.95

(minimum-maximum scores for sufficiency are 1 and 5)

Table 17. Sufficiency of Exterior Spaces for Various Activities

	Yeşilyurt	Halit Ziya
Suff. of ext. for:	mean values	
plantation	3.07	3.65
chatting	2.34	3.36
resting	1.90	3.13
playing	2.00	3.13

(the means are calculated by the addition of the results for areas A, B, C and D)

Table 18. Sufficiency of Spaces for All Activities in General

	Yeşilyurt	Halit Ziya
general suff. :	mean values	
interior	2.32	3.40
exterior :	2.31	3.27
A	2.61	2.96
B	2.46	3.37
C	2.06	3.08
D	2.10	3.63

(the means are calculated by the addition of responses given for each activity for each space)

In Table 16, except for the activity of play, interior space of Halit Ziya building is found more sufficient for various activities, compared with Yeşilyurt building. In the same manner, the exteriors are found more sufficient for the identified activities in Halit Ziya, as shown in Table 17. So, in general, as observed from Table 18, sufficiency of interior and exterior spaces for a variety of activities are significantly different from each other, except for area A, which is equal in terms of general sufficiency for both apartment buildings.

Differences can be observed not only between each building, but also between the near-home spaces of each building. The results concerning sufficiency and use of the near-home environment are meaningful in terms of expression of identity and territorial behavior. While area D and interiors of Halit Ziya are found sufficient for a variety of activities, none of the spaces within the Yeşilyurt environment are found sufficient. It should be noted that, area D was once a playing area for the children

of Halit Ziya residents, which, as one respondent recalls "was even enough for the children in the whole neighborhood". However, through the changing needs, it was recently converted into a car park. Yet, since it is a large space, it is also found sufficient for plantation, sitting and resting, and playing for the majority of the residents (Fig. 19).

Figure 19. Teenagers Play Table-Tennis in the Car-park Area of Halit Ziya Building

The result indicating the lack of space for a variety of activities in Yeşilyurt is correspondent with the comments of Evyapan (1986) who had stated that exterior spaces in urban residential environments today are insufficient to carry out an activity. It should be mentioned that, although the findings showing the use and sufficiency of spaces are presented in this section, they are related to the

satisfaction of all the needs; safety and social contact besides identity. They are all integrated with one another, and the availability of space for an activity is significant regarding safety or the encouragement of social interaction .

4.3.4.5. Social Contact

In order to compare the effect of the near-home environment on the degree of social contact, a number of questions were asked in both phases of the research. Table 19 presents residents' responses to whether physical design has an effect on their relationship with neighbors, with Tables 20-21 presenting the responses to open-ended question of how this effect is.

Table 19 . The Effect of Physical Planning and Design on Social Contact

	Yeşilyurt	Halit Ziya
"does physical design affect contact?"	mean values	
interior	2.04	2.66
exterior	1.96	2.52

(1 indicating negative, 2 indicating no, and 3 indicating positive effect. Findings for interior spaces are obtained from the first phase)

Table 20. Effects of Interior Space Design on Social Contact

	Yeşilyurt		Halit Ziya	
positive effects of interior space des.:	N(25)	%	N(30)	%
see, talk to more people than in normal bld. / see both upper and lower floors.	-	-	12	40
spacious/ comfortable/ wide	2	8	5	16.67
use court to sit and chat	-	-	4	13.33
sit at corridors in summer	-	-	1	3.33
opportunity to wave from kitchen	-	-	1	3.33
positive for children	-	-	1	3.33
negative effects of interior design:				
not wide and spacious, dark	1	4	-	-
not opportunity to see, since house is at ground floor	1	4	-	-
people place wardrobes at corridors	-	-	1	3.33
people shake carpets from corridors	-	-	1	3.33

(Findings for interior spaces are obtained from the first phase)

Table 21. Effects of Exterior Space Design on Social Contact

		Yeşilyurt		Halit Ziya	
positive effects of exterior space des:		N(25)	%	N(25)	%
D	Sharing common space-possibility of meeting- play table tennis/volleyball	-	-	7	32
D	spacious, comfortable use	-	-	1	4
A	garden is positive, sit/chat in front of entry door	2	8	-	-
AB	garden is positive, common decisions discuss/made about it	1	4	-	-
gen.	able to chat/talk in the open air	-	-	1	4
negative effects of exterior space des.					
financial problems to aid maintenance cause complaint and conflict		3	12	-	-
no common space for meeting		1	4	-	-

As observed from Table 19, Halit Ziya building residents perceive their near-home environments as having a more positive effect on their social contacts, compared with Yesilyurt building residents, the difference being significant. A large number of Yeşilyurt residents feel that the physical design of building interiors (80 percent) and exteriors (72 percent) have no influence on social contact whereas a great number of people in Halit Ziya apartment building believe that building interiors (70 percent) and exteriors (52 percent) have a positive influence on social contact, facilitating interaction. All of the reasons given for the positive effect of physical design of the interior space of Halit Ziya depend on the design quality of the building (Table 20). 40 percent of the people responded that, the influence is positive since they are able to see more people in the building compared to that of regular apartment buildings as they can view the upper and lower floors. This corresponds with the statement of Gans (1970) who claimed that the opportunity for visual and social contact depends on the formation of the common areas of apartment buildings, as expressed in section 3.3.

In the exterior near-home environment, there is a chance to meet and carry out certain activities in area D of Halit Ziya, which is a common parking place , also used to play volley-ball and table-tennis (Fig. 19) . The people that use common areas of both buildings are usually teenagers. Friends in the apartment, the residents of Halit Ziya explained that they sat, talked and rested in the courtyard as they found it safe until late at night (using the three seat-like concrete elements), as well as benefiting from the area D (Fig. 19-20). The three teenager respondents of Yeşilyurt, in contrast, used the upmost stairs in their building (where it was not as dark as lower floors) or sat in front of the entrance door, remarking that they needed available space especially when they were not permitted to go outside at night (Fig . 21). These complaints indicate that there is definitely a need of common space for young residents who spend a lot of their time at home and near-home environment, having their first socializing experience.

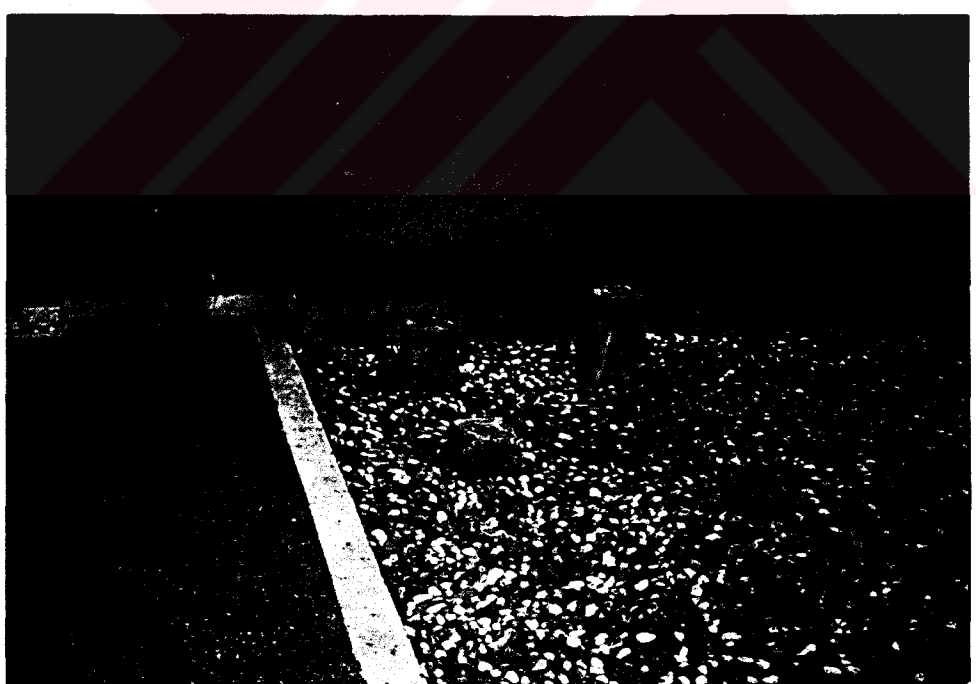

Figure 20. Elements Used for Sitting by Teenagers of Halit Ziya Bld. in the Courtyard

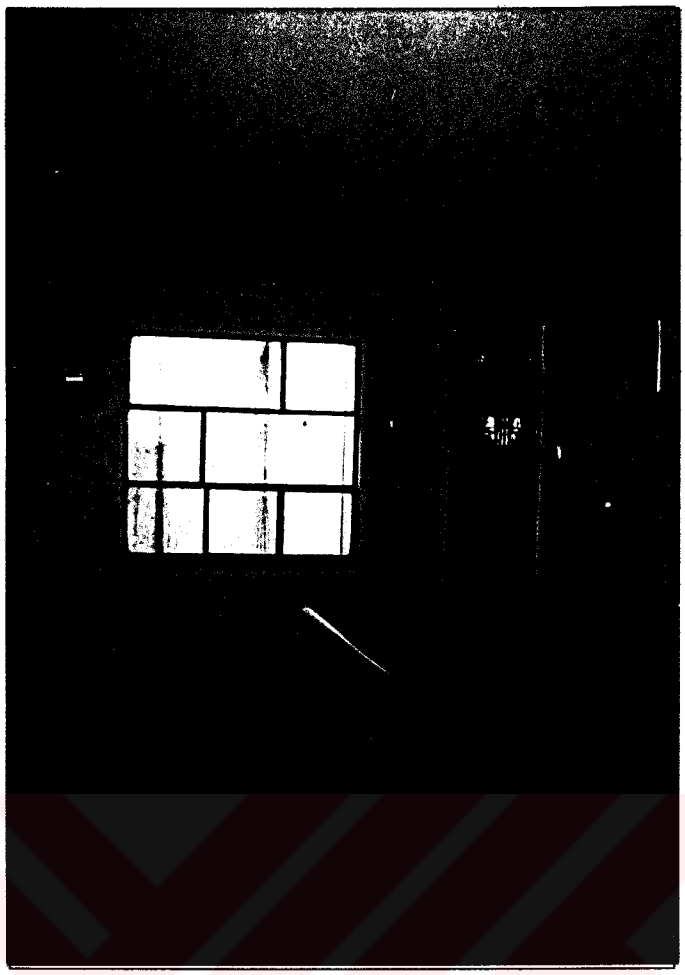

Figure 21. Stairs on the Upper Floor are Used for Sitting by Yeşilyurt Bld. Teenagers

Attention should be given to the responses of three Yeşilyurt residents who believed the characteristics of the physical environment had a negative influence on their neighborly relations due to the financial aid needed for maintenance, etc. This corresponds to one of the components of sense of community, 'closure to events', indicating that if there are unsolved problems within a community, group cohesiveness will be restricted (McMillan and Chavis, 1986). Here, the time factor, near-home environment , economy, and social relations are all influenced by one another.

Among the people who stated that the design had no effect, four people from Yeşilyurt building and one person from Halit Ziya building added that physical design could have no effect on the relationship of peoples, believing that this was related to the personalities of the people rather than the physical environment.

The effect of the physical design of the interior spaces on the degree of passive contacts and the number of neighbors known by respondents had been investigated in the fist phase of the research. The findings obtained are presented in Table 22:

Table 22. Number of People Seen in Buildings

	Yeşilyurt		Halit Ziya	
no. of people seen in bld. yesterday/ today by resp.	N (25)	%	N(30)	%
0-1 people seen	17	68	9	30
2-4 people seen	7	28	13	43.3
5-6 people seen	1	4	5	16.7
missing	-	-	3	10
average number of people seen that day	1.04		2.44	

(Results are obtained from the first phase)

The table presents if the number of people seen in each building in one day differs. In order to exclude certain influences of changes in days, the survey was carried out only on workdays (if it was a Saturday, the question was changed into the number of people seen the previous day). These tables clearly show that, the expressions of the Halit Ziya respondents on the possibility of more passive contacts are valid.

However, there is not a distinct difference between the percentages known by respondents, having lived the same years, in two apartments (Table 23). In spite of this, there can clearly be observed an increase in the percentage of people known as the number of years lived increases. Thus, there is a positive correlation between these two variables at 0.559 ($p \leqslant 0.001$). Therefore, along with the social factors, the time factor seems to have a significant effect on the number of people known by respondents.

Table 23. Percentage of Neighbors Known by Respondent in Building

	Yeşilyurt		Halit Ziya	
number of years of living by respondent	N of res.	mean of %	N of res.	mean of %
0-4 years	13	48.46	9	45.76
5-9 years	4	53.39	13	57.86
10+ years	4	79.46	16	83.53

(results are obtained from the first phase)

Table 24 presents the results of an explanatory question aiming to find out the effect of the physical environment and the distances on the initiation of friendships, without seeking for a difference between the two apartment buildings. Likewise, the effect of physical environment on peoples' not interacting was also questioned.

Table 24 Neighbors Known by Respondent in Near-by Buildings

	Yeşilyurt		Halit Ziya	
know near-by bld. neigh.?	N	%	N	%
Yes	14	56	13	52
No	11	44	12	48
if "yes", how did you meet?				
casual meeting	9	36	10	40
by smo. else/ knew before	8	32	5	20
at market/shop	3	12	2	8
at coffee house	1	4	-	-
during ceremonies in Bayram	1	4	-	-
while playing (children)	1	4	2	8
if "no", why not?				
no need	2	8	5	20
no space/medium	3	12	4	16
no time	8	32	2	8
just started living/started to live at an old age	1	4	3	12

In addition to the above results, the first phase of the research conducted in 1995 searched for the differences in friendship between the two buildings. Inconsistent results were found, and the measurement of the quality and quantity of friendships were problematic. As a result, it is concluded that the social environment and the factor of time are dominant on the quality and quantity of friendships. Nonetheless, from the above tables, we can conclude about the influence of physical and functional distances on the quantity of contacts (especially in Halit Ziya building), and on residents' perception of the influence of design on their relationships.

4.3.4.6. Privacy

Investigating the satisfaction of privacy need, residents were questioned if the distances between their dwelling windows and adjacent buildings (the courtyard windows were also questioned in Halit Ziya building) disturbed them regarding

privacy, and if they could maintain privacy within the building or not (Table 25). Privacy mechanisms used to protect privacy were also searched (Table 26-27).

Table 25. Privacy in the Near-Home Environment

	Yeşilyurt		Halit Ziya	
	means	N	means	N
keep privacy in apt.?	4.12	25	4.00	25
distance not dist. pri.?				
interior	-	-	3.80	20
exterior :	3.48	25	2.82	25
A	4.11	9	3.60	5
B	4.00	12	4.00	9
C	2.75	16	2.73	15
D	3.46	13	2.31	16

For Halit Ziya apartment, there is a significant difference between the disturbances of privacy related to the distances and placement of windows within the building (mean value of 3.80) and exterior in general (mean value of 2.82).

Table 26. How Privacy is Achieved Within the Building

	Yeşilyurt		Halit Ziya	
privacy maintenance within the apt:	N	%	N	%
pri. kept by itself, people careful	12	48	20	80
choice while contact	14	56	6	24
do not meet	6	24	-	-
physical boundaries	4	16	-	-

Table 27. Precautions to Protect Privacy at Building Exteriors

	Yeşilyurt		Halit Ziya	
if disturbed, mechanisms used for privacy	N	%	N	%
curtain usage	11	44	14	56
control of time, clothing at ext. spaces (balc.)	3	12	3	12
screen / ivy	2	8	-	-

In order to understand the relation between the physical design and privacy, an accurate analysis of the design of near-home environment and the usage of interior spaces within dwellings is necessary. It is clear from the mean results that, the residents in both buildings can protect their privacy within the building. This was not expected in Halit Ziya apartment, since there are kitchen and bathroom windows looking towards the courtyard. However, as seen from Table 27 (they can keep their privacy within the building, with a mean value of 4.00; the distances do not disturb privacy, with a mean value of 3.80), this does not cause any disturbance for the majority of the residents. The reason for this was asked informally to the interviewees, and the answers were indeed related to the physical formation. A few respondents remarked that, visibility of the courtyard is in fact appreciating rather than causing disturbance. Furthermore, since the windows were placed at a high level, there was no problem. Thus, another respondent stated that since the spaces overlooking the courtyard were service spaces, the activities carried out did not require privacy. Finally, one respondent could maintain privacy since there was translucent glass on the kitchen windows (only a few dwellings have translucent glass). On the other hand, one resident was disturbed and always kept the kitchen curtains closed since her dwelling was situated in front of the staircase, where the people could observe the interior while climbing the stairs. Likewise, another respondent said that her privacy was protected since her kitchen window could not be seen from the staircase, otherwise, she would be disturbed. Finally, one resident remarked that noise passing from the bathrooms was a problem.

The responses given to the reasons of why the respondents are, or are not disturbed by courtyard windows are mainly of physical orientation. It is interesting that minor details in the physical environment can have major effects on the satisfaction of psycho-social needs. When asked, through questionnaire, how

privacy was kept within the buildings, social factors besides physical ones also revealed (Table 27). A great number of respondents in both buildings did not take a particular precaution to maintain privacy, expressing that the neighbors were careful and respectful in that manner. However, some preferred to limit their quality and quantity of contacts with their neighbors. It is believed that the personalities of the respondents and the neighbor characteristics are determining the ways of how people protect their privacy in the interiors.

When analyzing the effect of distances of adjacent buildings to the apartment building in the exterior, differences have been found to exist between buildings as well as between each side of apartment, as was expected (Table 25). The main differences between buildings are observed at area A and D (the difference in D being significant). This is because, while area A adjacent to Yeşilyurt building is a street facade, Halit Ziya and its neighboring buildings are distanced 6 meters apart.

Likewise, Halit Ziya dwellers are strongly disturbed by the high-density high-rise construction of Çankaya projects just in front of area D (Fig. 23). The contrast between the previous condition when there was no building there, with the view of open, spacious outdoors; and today, when there is a whole 'wall' of windows and balconies looking towards their dwellings annoy the residents, thus giving them a feeling of crowding: " We cannot be comfortable with our curtains open anymore", " There is no place left for us to breathe, the whole front will be covered with strangers' windows." "The C side does not disturb me since there is not a large number of people, but at the D side, there will be an immense number of people which I do not want"... However, the distance between the neighboring building

and Yeşilyurt apartment building is not small, and the density of the neighboring building is not as high as the Çankaya project (Fig. 22).

Figure 22. Yeşilyurt Bld. Residents Overlook Middle-Rise Neighboring Building

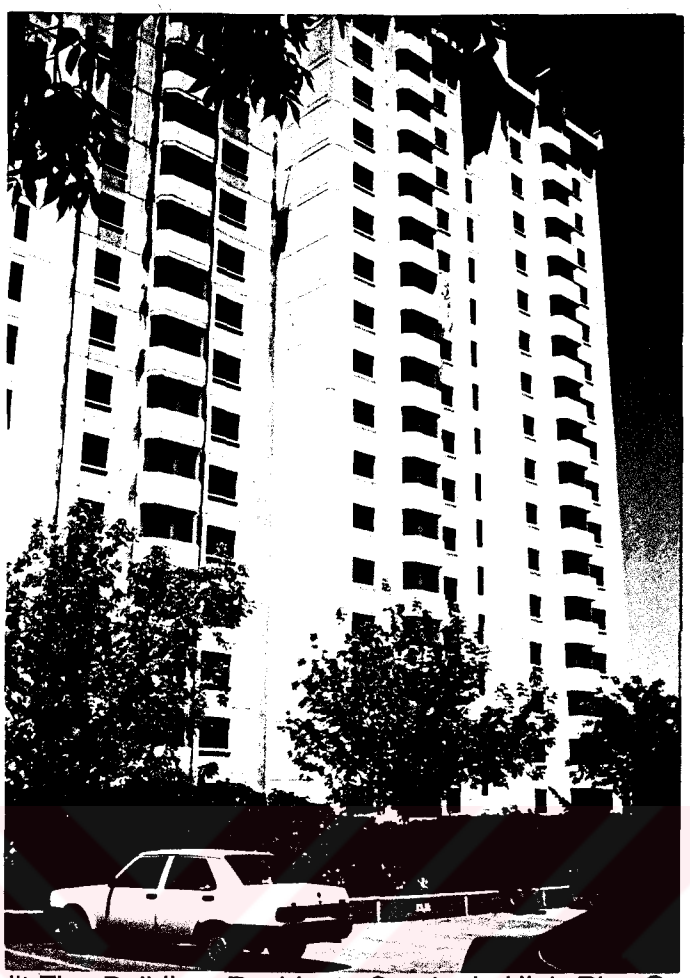

Figure 23. Halit Ziya Building Residents Overlook High-Rise Çankaya Project

The reasons for the differences in the maintenance of privacy concerning distancing in area A and C adjacent to Halit Ziya building should also be mentioned. Although the distances between neighboring buildings are both 6 meters, for the building adjacent to area A, the mean level of disturbance is 3.60, while for C it is 2.73. The reason for this revealed through informal questions and analysis of interior space usage. Thus, the five people living in dwellings looking towards area A either did not use the room that had a window towards that area, or they used the room very rarely. In contrast, the rooms looking towards C were used by the respondents, with one resident being obligated to convert the 'family

room' to a child bedroom, when the construction of the neighboring building was completed.

Taking into consideration the above condition, we can observe from the Table 25 that, especially in Yeşilyurt apartment, as the distances between buildings increase, the privacy disturbance decreases. Hence, Yeşilyurt building residents with houses facing the street stated that this was a property they appreciated in their homes. In contrast, privacy disturbance mean of the respondents with dwellings facing area C is nearly neutral.

4.3.5. Discussion of Findings and Design Recommendations

In this section, initially, the findings of the research will be discussed in relation to the proposed hypotheses. Afterwards, certain design suggestions will be presented based on the conducted research, as well as supported by the literature review in the previous chapter.

4.3.5.1. Discussion of Findings

The findings of the research support the two main hypotheses, that the physical design of near-home environment influences the satisfaction of psycho-social needs of residents; and variations in the design features of spaces in the near-home environment influence the resident needs and behavior at that space differently. Thus, variations in the formation of interior common spaces of Halit Ziya apartment building and Yeşilyurt apartment building, as well as in the design features of the different areas outside the buildings, have diverging influences on the satisfaction of safety, identity, social contact and privacy of the residents.

The main problem during the research was the inclusion of a large number of variables, and the identification of design characteristics of the environments. Some questions, as explained previously, were found insufficient during the survey. Altogether, many physical factors are found influential on the satisfaction of psycho-social needs, and the comparison of Yeşilyurt building with Halit Ziya building testified the influences of physical design.

The residents surveyed in the research give major significance to the fulfillment of their safety and privacy needs. They also believe that social contact and reflection of identity within their home and near-home environment are significant needs to be satisfied.

Social and physical factors are influential on the satisfaction of safety within the near-home environment. The security of the neighborhood, and recognition of neighbors are important for residents of both buildings, to feel safe. Results do not support the hypothesis that territorial behavior is more within the building interior than exterior. This was argued to be true since interior spaces are closer to the dwellings. However, this could be further studied through in-depth questions, since the findings related to safety were presented as a combination of three variables.

However, results clearly support the hypothesis that there are differences in territorial behavior and perception of safety due to the variations in design. Firstly, the design quality of the courtyard in the Halit Ziya building encourages security. Residents of both buildings require the control of visual and physical access to the near-home environment. Therefore, design characteristics and elements that provide or prevent this are significant. Likewise, lighting, natural surveillance opportunities and the degree of privacy of various spaces within the near-home

environment are influential, with the availability of these factors in spaces encouraging feeling of safety.

Reflection of identity was measured by a number of variables. Satisfaction of identity through personalization and being in harmony with the environment in Halit Ziya building was found more than that in Yeşilyurt building. The effect of time on the environment, the existence of available spaces, the number of years of residence all seem to be influential on identity. However, questions related to economy and management, and other forms of intervention to spaces should be integrated with the questions related to personalization, to gain more accurate findings. The use and sufficiency of spaces in the near-home environment widely differ depending on the quality, area and orientation of these spaces. Residents tend to modify their environments according to their changing needs and activity patterns, if only there is available space for modification. In general, the near-home environment of the building on Halit Ziya street is used for more activities than the one on Yeşilyurt street, being found more sufficient for a variety of activities, such as plantation, resting, chatting and talking, playing etc. These are not carried out by all the residents, with reasons such as lack of time, lack of available space, and because they do not need to.

Evaluating the result for social contact, a significant difference is observed in the influence of the near-home environment on the degree of social interaction between the two buildings. While almost all the residents of Yeşilyurt believe that their physical environment has no influence of their neighborly relations, a majority of the Halit Ziya residents think the environment facilitates social contact. The courtyard, a collective space that increases the functional distance between the neighbors, gives the residents the opportunity to see and talk to many of their

neighbors, which would not be possible in a standard apartment building. This is verified by further investigation of the number of people seen in a day by the residents in both buildings, which was more in Halit Ziya building. Besides, a common car park, which is spacious and available for other activities, is believed to enhance the Halit Ziya residents' social contact. However, there is not a difference of the degree of knowing of neighbors between the two buildings.

The satisfaction of privacy is very much influenced by the personality of the neighbors, their use of physical and social privacy mechanisms, their respect to one another, as well as the physical design qualities of the environment. Neither Yeşilyurt, nor the majority of Halit Ziya residents have problems of maintaining privacy within the interior of their buildings. Certain design features, such as the service windows being placed at a high level overlooking the courtyard, prevent the disturbance of privacy. However, in both buildings, physical distances between their dwelling windows overlooking adjacent buildings are determinant on their maintenance of privacy. The function and use of the interior spaces within the dwelling also effect the desired and achieved level of privacy in relation to the distances.

Some components within the near-home environment that influence psycho-social needs are the interventions of the residents themselves, such as lighting, lock on the entrance door, existence of fences. Others are planned in the initial design stage by the architect, such as the designation of the building interiors, the orientation of the entrance related to the street, the building density. Still others are beyond the control of the architect or the residents, mainly depending on the building codes. Thus, the limitations caused by the building codes not only prevent the provision of positive outdoor spaces, but also reduces the amount of

area adjacent to buildings, which can be used for a variety of activities. Since the building densities are high, services are inadequate, so a majority of the near-home environments are used as service areas, such as service roads, car parks, etc. The proximity of buildings and their densities analyzed in the research, are very influential on the satisfaction of privacy need (for instance, the high-density Çankaya project), so minimum required distances between buildings should be increased to provide adequate near-home spaces for satisfaction of certain needs, as well as controlling densities. The building codes should also encourage design of positive outdoor spaces integrated with the buildings, which enhances territoriality, personalization and social interaction.

It should be remembered that, the research was conducted with a very small sample size having similar characteristics. The degree of satisfaction of psycho-social needs, and the importance given to them are likely to differ for another population, with different social norms and relations, living habits, economic and working conditions, etc.

The research was comparative as well as exploratory, not only investigating the needs that the residents of two Ankara apartment buildings assigned priorities, but also questioning what qualities of design influenced what psycho-social needs of the selected sample group. These are both important factors that should be considered when designing urban home and near-home environments, for a population similar to that of the selected sample group. One of the outcomes of the research was an opportunity to look at near-home environments from the residents' point of view. The results were generally found consistent with the reviewed case studies.

4.3.5.2. Design Recommendations

Studying the relationship between the residents' psycho-social needs and their near-home environments, a number of principles can be pointed out that would lead to recommendations about the design of housing environments. However, some design characteristics, while enhancing satisfaction of certain needs, may provide barriers for another. Besides, since the intensity of needs of people changes depending on personality, economy, culture, habits and many other social factors, the design of the environment should consider the specific needs of the inhabitants who will use that residential environment.

The Sufficiency of Spaces: First of all, there should be available space in the near-home environment to allow a variety of activities, and give the opportunity to the residents to use the spaces to satisfy their needs. Near-home environments should be more than organization of spaces for minimum functional requirements, such as passage, circulation, parking areas, etc. Certainly, the organization between the buildings and the transitional spaces around them depends not only on the architectural design, but also on the initial urban design and planning considerations.

The Hierarchy of Spaces: In order to encourage safety, identity, required social contact and privacy, there should be a sequencing of spaces from public, to semi-public, semi-private and private when reaching from the street to the home (Krupat, 1986; Newman, 1972). The degree of publicity, as signified in the conducted research, is very influential on the satisfaction of needs as well as the activity patterns in a space. This hierarchy can be achieved by considering a number of aspects of design, which will be mentioned.

Definition of Zones and Boundary Control: These are indeed necessary to differentiate the spaces of different degrees of privacy within the near-home environment both for the dwellers and the strangers. Thus, there should be a control of access and use in every space, so that every space is known to belong to somebody or some group (Brower, 1988; Newman, 1972, 1995). This will also indicate the strangers that the spaces he/she intrudes are under the control of the dwellers of the residential building. Controlling the access to certain zones not only limits the freedom of non-residents, but also reassures the freedom of use of the residents. Thus, it may encourage the inhabitants of that building to use, personalize, and to feel responsible for that space. In order to indicate which place belongs to which group, and in order to communicate the transitions from public spaces to semi-public and private spaces, real and symbolic barriers may be used where necessary:

Real barriers are the presence of buildings, walls, fences, locked and controlled doors and gates. The key to locked doors and gates to the entrances of the exterior spaces of building property, and to the building itself, provide safety for the residents and require trust among the residents themselves. Nevertheless, they prohibit the access of strangers within the limits of the near-home environment.

Symbolic barriers, on the other hand, may be changes in surface material and texture (of the ground, defining walls), small height or open doors, plantation, change in levels and steps. These, provided by the designer or the residents, indicate identity, as well as a territorial distinction and possession of that space, announcing that a person of suspect will be asked for justification of his/her presence, whereas this can not be true in a public space.

Natural and Artificial Lighting: Within and around residential buildings, natural and artificial lighting should be provided, preventing unseen, dark areas which are perceived as dangerous especially at night. This should be emphasized especially in the areas of constant use and passage such as entrances, park areas, play areas, stairways. Besides providing safety, natural light within the building common areas can also aid the use of those spaces more, and their personalization. For example, natural light allows plantation by the residents within the buildings, immediately changing the attitude towards the near-home environment and identification with these spaces.

Natural Surveillance: As mentioned by the residents interviewed in the research, visual access to the near-home environment is of crucial importance, especially to acquire safety. Therefore, every place within the near-home environment should be visible from the street or the dwellings, providing opportunity for natural surveillance. This is also mentioned by Newman (1972) as one of the most important components of a defensible space. Surveillance encourages control and a chance to intervene to an incident occurring within the near-home environment. Thus, the use of spaces can also be increased in this manner, e.g., parents may watch out for their children playing in front of them from the window. Besides increasing the possibility to intervene, natural surveillance also increases mutual recognition, enabling the residents to differentiate their neighbors from strangers and to increase their interaction with one another. As stated previously, provision of natural light to the interior of buildings, as well as view to the immediate exterior will contribute to the integration of the interior and exterior near-home environments.

While providing means of natural surveillance, the designer should also consider the privacy need of the residents. Thus, there should also be a hierarchy of spaces within the dwelling so that more private areas of the house, such as bedrooms, do not overlook a very public area; whereas service spaces, such as kitchens, may overlook public and semi-public areas to increase surveillance.

Flexibility: The design should encourage the personalization of one's own home-front, whether it is a window, a facade, a balcony, a preparation space for entry, etc. (Rapoport, 1982a; Egelius, 1980). A compromise between the initial design and possible modifications should be considered. Semi-private spaces can be designed to provide modification of the residents, communicating their identity flowing from the interior of their dwellings to the exterior. Given an opportunity for modification, more care to the environment, and increase of use of the near-home environment is possible. In other words, near-home environments should be arranged so that the indoor and outdoor areas are defined and are extension of the dwellings, in the form of positive spaces that allow the reshaping and modification of the individuals by using semi-fixed elements (Alexander, *et al.,* 1977). Within the building, there can be symbolic barriers to define the entrances of each door where certain transformations can be made by the residents.

The Physical and Functional Distances: The design of the near-home environment should increase functional distance by surveillance (as stated) and available space for mutual recognition and casual contact (Egelius, 1980; Festinger, *et al.,* 1967; Nasar and Julian, 1995; Scott, 1971). Thus, collective semi-public spaces, like entrances or windows overlooking a common area (may be interior or exterior), or an area open to the use of the residents may enhance social contact. If near-home environments are open to additional uses such as playing, sitting, resting,

growing plants etc., instead of spaces used only for circulation and passage, this may provide the opportunity for communicating identity and social interaction as well as increasing territorial behavior.

The quality of such semi-public spaces as well as the number of people using them is of crucial importance. If these spaces do not directly belong to the residents, are too far from the dwellings, formed as negative spaces instead of positive ones, and accessible to everyone (too public), then the nature of usage and the behavior towards the environment and the perception of the environment may indeed change. Besides, safety requirements should be met in an environment, so that residents can use that environment without a feeling of insecurity.

When estimating the distances of dwellings within a building and the building facades within a residential environment, privacy should certainly be a determining factor. Buildings too close to each other may be very disturbing for residents in terms of visual and audial control. The home and the near-home environment should be planned as a whole, estimating distances with the consideration of privacy, while using symbolic or real barriers where found necessary.

Density of Buildings and Planning: Particularly in high-density and high-rise urban residential buildings, all of the psycho-social needs are in danger, with the potential of crowding stress and behavior. Density and crowding should be arranged adequately in order to prevent 'too many strangers' within near-home territories of people. Since perception of crowding is mostly person-dependent

and culture bound rather than depending on density, the designer should consider the context in which the residential area is planned.

In environments where crowding and high-density are major concerns, space hierarchy should be achieved to reach a balance between the degree of social contact and privacy (Newman, 1972). Thus, people may interact with each other when needed, while still retaining their control of interaction and privacy. They should also be able to differentiate their neighbors from strangers, increasing informal social control within the near-home territory. Control of density is, then, important within a residential building as well as within adjacent buildings, both of which are likely to threaten the satisfaction of the residents' needs.

This can be achieved by clustering and grouping buildings and homes together. In other words, the subdivision of spaces into territorial zones and domains and the provision of spaces that enhance collective responsibility and usage is necessary. If many people use a certain amount of space, the degree of one to feel responsible for that space decreases; the place is perceived as too public. However, if grouping occurs in entrances and circulation areas in high-rise high-density buildings, mutual recognition and responsibility will increase, as well as reducing isolation and feeling of crowding. Some examples of such planning decisions are given by Newman (1972).

5. CONCLUSION

In this study, the physical design of urban near-home environments was analyzed in relation to human psycho-social needs and spatial behavior. Within an environment behavior perspective, the influences of physical design features on the fulfillment of these needs were studied. Psycho-social needs within urban near-home environment were chosen as an issue of concern since it is believed that, being transitional spaces from the private dwelling to the public street, they are the places where human beings exert certain behaviors to fulfill their needs. Residents' behavior extend beyond home in order to live a satisfactory and healthy life, which reflects itself on the physical and social environment in these transitional spaces. In this way, they influence and are influenced by the physical planning and organization of near-home environments.

Identifying basic psycho-social needs as safety, identity, social contact and privacy, design aspects within near-home environments were studied concerning these needs and behavior exerted to fulfill them; through literature review and research work. The design features, from major planning decisions to minor design details, were argued to have varying influences on human spatial behavior. The effects of design on territorial behavior, crowding behavior, personalization, identification, and defense of spaces, together with the physical and social means to increase social interaction as well as to achieve privacy were discussed. Specific design aspects that were predominantly influential on particular attitudes

and fulfillment of particular needs were mentioned. After this analysis, certain design suggestions were proposed.

The research conducted in two middle-density apartment buildings in Ankara gave the opportunity to test the significance of the design of urban near-home environments, within a different context than those in the research examples. At the same time, the specific needs of a sample group from the Turkish population were explored. The intensity of each psycho-social need, the attitudes and views of the residents about near-home environments were investigated. The main difference between the two buildings was that one had a courtyard in it, whereas the other had a minimum circulation space of a staircase and a landing in the interior. The presence of a courtyard in an apartment building is atypical for buildings in Ankara, and the effects of this distinct design characteristic on the psycho-social needs were explored, in comparison with a regular apartment. In the same manner, the adjacent spaces of the apartments, which were different in terms of orientation, area, availability for various activities, were compared between each other and among the two buildings.

The results were found to be consistent with the previous studies in the literature. Various design features had significant effects on the residents' satisfaction, their use of space and behavior. Factors such as opportunity for natural surveillance, the control of physical and visual access to certain spaces through windows, doors, fences, the hierarchy of spaces from the street to the dwelling, the quality of these spaces in terms of orientation and degree of publicness, the distances between buildings were all significant in determining the satisfaction of needs.

Some physical features were found to be ineffective, while others were perceived to have positive or negative effects on residents' quality of life. In certain spaces, modifications were made in order to overcome the deficiencies of design that limited residents' behavior. During the analysis of the data, additional findings were obtained about the social environment and the time factor which had also varying influence on the satisfaction of needs.

While discussing the findings of the research, a general perspective of the environment-behavior interaction in the studied buildings was provided. The design properties of urban living environments regarding human needs and human spatial behavior were presented from the residents' point of view, with the intention that this should be a concern for the designers when designing residential environments.

As a result, it can be claimed that the physical characteristics of the near-home environment are indeed significant in establishing the satisfaction of residents' social and psychological needs. They are an integral part of the environment, continuously shaping and being shaped by people's behavior. Thus, the environment is not only structured by the designer, but also formed through the interventions and modifications of the users. The physical environment has a capacity to encourage safety, identity, social contact and privacy, as well as discouraging the fulfillment of these needs. The degree of the influence depends on the design characteristics, the social context, as well as the priorities given to the changing needs. The role of the designer is to provide the user with the freedom of choice and behavior in the near-home environment; encourage him/her to be able to fulfill his/her needs in the environment. Home and near-home environments should be designed considering the particular and possible

behavioral patterns of the residents, bearing in mind that the designers can have a supportive role in the happiness of the users.

The issue of human psycho-social needs within near-home environments should be a concern not only at the architectural design stage, but also at the initial stage of urban planning and determining the building codes. Thus, the limitations brought by the building codes has its consequences on the quality of near-home environments, which influences the well being of the residents.

There are many aspects of this issue that requires further investigation other than the conducted research. First, only near-home environments were taken into consideration in relation to the social and psychological needs of human beings. However, the psycho-social needs, within the framework considering concepts of human spatial behavior, can be investigated within other environments. These may differ regarding the physical environment (e.g. a specific building type), social environment (a sample with different social characteristics), or both. Discussing the conducted research, again, a similar research can be conducted within a different social context. For example, the different attitudes of residents with varying socio-economic characteristics, towards near-home environments with similar design qualities can be explored. In the same manner, the effect of the type of near-home environment on the needs of people of different gender and age may be compared. For instance, an 85 year-old male resident will obviously have different needs than a teenager, hence having distinct attitudes towards the near-home environments. In this way, particular design features may be found to enhance the satisfaction of a specific group.

A further research may be conducted in sites with other distinct design features than the ones studied in this research. For instance, the effect of different densities on the psycho-social needs may be explored in cities in Turkey. Likewise, a particular need with all its behavioral components may be analyzed in more depth in relation to the residential environment.

The main intention of this study is initially to understand the human social and psychological needs, since built environments are designed for the people. Therefore, it should be mentioned that, when designing environments, every design feature has a possibility of influencing the fulfillment of needs, so a deserved importance should be given to the interaction of the built environment and the psycho-social life of the users.

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APPENDICES

APPENDIX A

RESEARCH QUESTIONNAIRE- FIRST PHASE

APARTMANLARDA BİNA TASARIMININ İNSAN YAŞAYIŞINA ETKİSİ ÜZERİNE BİR ARAŞTIRMA

Burçak Serpil Nisan-Mayıs, 1995

Tarih: Apt. Tipi: Apt No: Kat:

GENEL BİLGİLER:

Evdeki tüm insanlar, 'aile reisiyle' le ilişkili olarak belirtilecektir.

Yaş 10-18 a
19-34 b
35-54 c
55- + d

Tüm insanlar, 'reis'le ilişkili	cinsiyet	yaş	cevaplayan
1			
2			
3			
4			
5			
6			

Bu evde kaç senedir oturuyorsunuz?

0-2 yıl 8-10 yıl
3-4 yıl 11-15 yıl
5-7 yıl 16- yıl

Evinize giren ortalama aylık gelir nedir?

4- 10 milyon TL 31-40 milyon TL
11-20 milyon TL 41-50 milyon TL
21-30 milyon TL 51-60 milyon TL
31-40 milyon TL 60- milyon TL
(eğer 60 milyon üzerindeyse miktar_____)

(aylık gelir/ kişi , belirtilen gelirin evdeki insan sayısına bölünerek hesaplanacak:
_____)

Öğrenim durumunuz nedir?

Okumuyor (okul yaşının altında)
Okumamış
Halen öğrenci.
İlkokul mezunu
Ortaokul mezunu
Lise mezunu
Yüksekokul mezunu

SORULAR:

1. Oturduğunuz bu apartmanın diğerlerinden sizce belirgin bir farklılığı var mı? (farklı mekansal kimlik, yani bina tasarımı açısından ayırdedici özellik anlamında)
   evet hayır

2. 'EVET' ise, ne tür bir farklılık olduğunu anlatmaya çalışınız._____

3. Bu apartmanda akrabanız var mı? evet hayır

4. 'EVET' ise kaç tane? (kapı numaraları yazılacak)
   1-3 10-12
   4-6 13-15
   7-9 16-

5. Akrabalarınızla ortalama olarak ne kadar zamanda bir, biraraya geliyorsunuz? (ziyaret veya beraber dışarı çıkmak gibi)
   haftada birkaç kez
   haftada bir
   ayda bir-iki kez
   bir kaç ayda bir
   senede bir civarında

6. Nerede biraraya geliyorsunuz?
   daire içinde
   daire ve apartman dışında
   apartmanın ortak mekanlarında

7. Bu apartmanda yakın arkadaşınız var mı? evet hayır

8. 'EVET' ise kaç tane?
   1-3 10-12
   4-6 13-15
   7-9 16-

9. Bu insanlarla ortalama olarak ne kadar zamanda bir, biraraya geliyorsunuz? (ziyaret veya dışarı çıkmak gibi)
   haftada birkaç kez
   haftada bir
   ayda bir-iki
   bir kaç ayda bir
   senede bir civarında

10. Nerede biraraya geliyorsunuz?
    daire içinde
    daire ve apartman dışında
    apartmanın ortak mekanlarında

kullanır mıydınız? evet hayır

21. 'EVET' ise ne gibi uğraşlar için (birden fazla cevap olabilir) , ve şimdi neden bu şekilde kullanmıyorsunuz?
çiçek yetiştirme _____
komşularla sohbet etme/ konuşma _____
ilan panolarıyla bilgi alışverişi_____
oturma/ dinlenme_____
oyun alanı (çocuklar için)_____
diğer _____

22. Apartmanınızın aşağıdaki kriterler açısından temizlik ve bakımı sizin için ne kadar önemli? (uygun boşluğa işaret koyunuz)

	koridor ve merd., varsa avlunun yer temizliği, silinmesi	camların (kapı-penc.) silinmesi	(varsa) çiçeklerin sulanması
çok önemli, hep dikkat ediyorum			
önemli, zaman zaman dikkat ediyorum			
çok önemli değil, pek dikkat etmiyorum			
hiç önemli değil, ilgilenmiyorum			

23. Sizce apartmanınızın ortak mekanları aşağıdaki uğraşlar için ne kadar yeterli? Gereğinden fazla mı? Gereği kadar var mı? Yoksa yetersiz mi?

	fazla	yeterli	yetersiz
Yeşillik, görsel zenginlik			
kendiniz için özel çiçek yetiştirme			
komşu/ arkadaşlarla sohbet edecek alan			
dinlenmek için alan			
çocuklar için oyun alanı (çocukları varsa)			

Diğer_____

APPENDIX B

RESEARCH QUESTIONNAIRE- SECOND PHASE

APARTMANLARDA BİNA İÇ VE DIŞ ORTAK MEKAN TASARIMLARI İLE İNSAN SOSYO-PSİKOLOJİK GEREKSİNİMLERİ İLİŞKİSİ ÜZERİNE BİR ARAŞTIRMA

Burçak Serpil Mayıs-Temmuz, 1996

Tarih: Apt. Tipi: Apt No: Kat:

GENEL BILGILER:

Yaş: 10-18 a
19-34 b
35-54 c
55- + d

Tüm insanlar, 'reis'le ilişkili	*cinsiyet*	*yaş*	*cevaplayan*
1			
2			
3			
4			
5			
6			

Bu evde kaç senedir oturuyorsunuz?

0-2 yıl 7-10 yıl
2-4 yıl 10-15 yıl
4-7 yıl 15- yıl

Evinize giren ortalama aylık gelir nedir?

4- 10 milyon TL 31-40 milyon TL
11-20 milyon TL 41-50 milyon TL
21-30 milyon TL 51-60 milyon TL
31-40 milyon TL 60- milyon TL
(eğer 60 milyon üzerindeyse miktar_____)

(aylık gelir/ kişi , belirtilen gelirin evdeki insan sayısına bölünerek hesaplanacak: _____)

Öğrenim durumunuz nedir?

Okumuyor (okul yaşının altında)
Okumamış
Halen öğrenci.
İlkokul mezunu
Ortaokul mezunu
Lise mezunu
Yüksekokul mezunu

SORULAR:

1. Yaşadığınız konutun (evinizin) yakın çevresinde kendinizi güvende hissetmeniz ne kadar önemli?

1	2	3	4	5
çok önemli	önemli	ne önemli, ne önemsiz	önemsiz	çok önemsiz

Aşağıdaki apartman içi ve dışındaki ortak alanlarda , belirtilen cümlelerin doğruluğunu 1'den 5'e kadar olan ölçüm düzeninde cevaplayınız. (çok doğru ise 1, çok yanlış ise 5 gibi). Apartman içi ortak alanları, merdiven, giriş, sahanlıklar olarak düşünülecek)

1	2	3	4	5
çok doğru	doğru	ne doğru, ne yanlış	yanlış	çok yanlış

	apt. içi ortak alanlar	apt. yakın çevresindeki alanlar			
		A	B	C	D
ALANSALLIK - GÜVENLIK					
2. bu alana ait olanla, dışarıdan gelen insanları ayırdedebiliyorum					
3. bu alanda gördüğüm insanların çoğunu tanıyorum					
4. bu alanda şüpheli bir kişi görülürse, birisi polis çağırır veya müdahale eder					
5 . bu alanları güvenli buluyorum					

6. Güvenli buluyorsanız, neden? (çevremdekileri tanıyorum, mahalle güvenli, kapıların kilidi var, sınırlar belirli vb vb.)

_____

7. Güvensiz buluyorsanız, neden?

_____

8. Güvenliğiniz için dairenizde herhangi bir önlem aldınız mı veya almayı düşünüyormusunuz? evet hayır

Evet ise nasıl bir önlem? (kapımın kilidi var, sağlam, bahçe , nerenin nereye ait olduğunu belirtiyor, demir pencerelerim var vb, vb, gelen geçen görülüyor)

_____

9. Bu alandaki çevre organizasyonunun, bu alanın düzenleniş planlanış biçiminin, güvenliğin sağlanmasında bir etkisi var mı? (uygun yere işaret koyunuz)

	apt. içi ortak alanlar	apt. yakın çevresindeki alanlar			
		A	B	C	D
1. olumsuz etkisi var					
2. olumlu-olumsuz etkisi yok					
3. olumlu etkisi var					

KiMLiK

10. Yaşadığınız konutun (evinizin) yakın çevresinde kendi kimliğinizi ifade edebilmeniz sizin için ne kadar önemli?

1	2	3	4	5
çok önemli	önemli	ne önemli, ne önemsiz	önemsiz	çok önemsiz

Aşağıdaki cümleler sizin için ne kadar doğru?

1	2	3	4	5
çok doğru	doğru	ne doğru, ne yanlış	yanlış	çok yanlış

	apt. içi ortak alanlar	apt. yakın çevresindeki alanlar			
		A	B	C	D
11. bu alanda bana ait olan birşeyler var/ bu alana kendimden birşeyler katabiliyorum / kendimi ifade edebiliyorum.					
12. Bu alanda, benim kimliğimi, yaşam tarzımı ifade edebilecek birşeyler var, karekterimle uyumlu					
13. Bu alanın temizlik ve bakımına iştirak ediyorum veya kontrol/ dikkat ediyorum					
14. Boş zamanlarımda buranın niteliğini değiştirmek için birşeyler yapıyorum (evet hayır)					
15. Evet ise neler yapıyorsunuz? *çiçek, ağaç yetiştirme *sebze yetiştirme *bakım, temizleme,düzenleme *diğer---					

16. Sizce apartmanınızın iç ve dış ortak mekanları aşağıdaki uğraşlar için ne kadar yeterli?

1	2	3	4	5
fazlasıyla yeterli	yeterli	ne yeterli, ne yetersiz	yetersiz	çok yetersiz

	apt. içi ortak alanlar	apt. yakın çevresindeki alanlar			
		A	B	C	D
kendiniz için özel çiçek yetiştirme					
komşu/ arkadaşlarla sohbet edecek alan					
dinlenmek için alan					
çocuklar için oyun alanı (çocukları varsa)					
Diğer (belirtiniz) _____					

SOSYAL İLİŞKİ

17. Yaşadığınız çevresde insanlarla/komşularla iletişim kurabilmeniz sizin için ne kadar önemli?

1	2	3	4	5
çok önemli	önemli	ne önemli, ne önemsiz	önemsiz	çok önemsiz

18 . Bu apartmanın yakın çevresindeki binalardan tanışıp görüştüğünüz kimse var mı? evet hayır

19. "Evet" ise kaç tane?

20. 'Evet' ise bu insanlarla genellikle nasıl tanıştınız? (tanışma şekillerini çoğunluk sırasına göre de dizebilirsiniz)

karşılaşarak
tanıdık vasıtasıyla
alış-veriş ederken
diğer_____

21. 'Hayır' ise neden?

Gereksinim duymuyorum
Kimseyle karşılaşmıyorum: uygun ortam /mekan yok
Zamanım yok- giriş çıkış saatlerim insanlarla çakışmıyor
diğer_____

22. Sizce apartmanın yakın dış çevresinin düzenleniş, planlanış biçimi apartmandaki diğer insanlarla olan ilişkinizi nasıl etkiliyor?

Olumlu etkiliyor/güçlendiriyor. Nasıl?_____
Olumlu/olumsuz etkilemiyor.
Olumsuz etkiliyor. Nasıl?_____

APPENDIX C

VIEWS FROM NEAR-HOME ENVIRONMENTS OF HALİT ZİYA BUILDING AND YEŞİLYURT BUILDING

Figure C.1.View of Halit Ziya Building from the Street

Figure C.2.Aerial View of Halit Ziya Building

Figure C.3. The Entrance to Halit Ziya Building and Car Park (Area A)

Figure C.4. Front Garden of Halit Ziya Building (Area B)

Figure C.5. The Extension of the Garden of Halit Ziya Building at the Side (Area C)

Figure C.6. The Car Park Area of Halit Ziya Building(Area D)

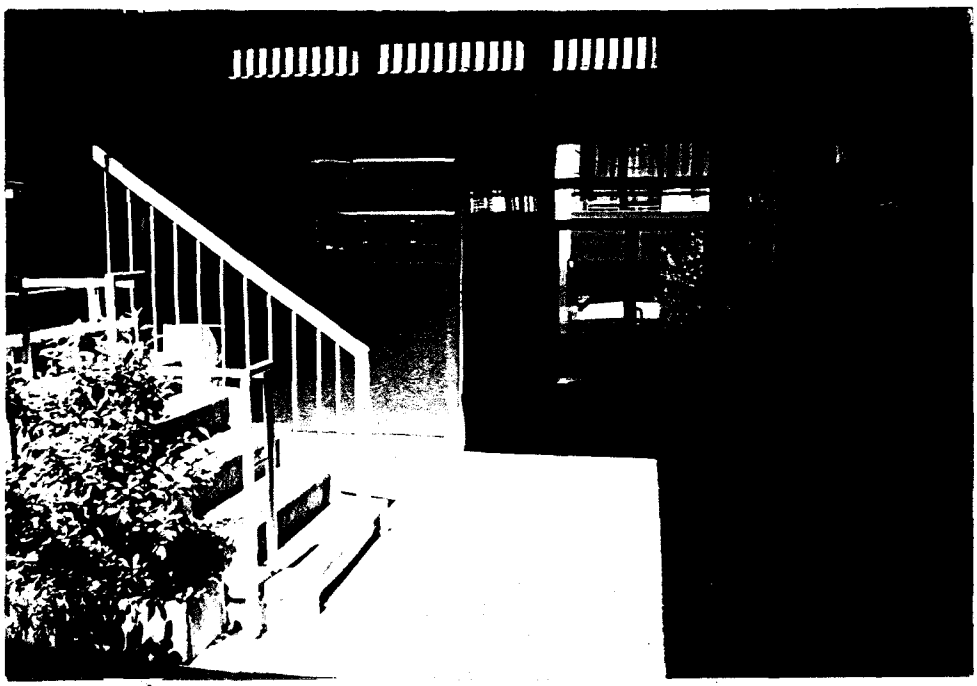

Figure C.7.The Entrance of Halit Ziya Building Viewed from the Courtyard

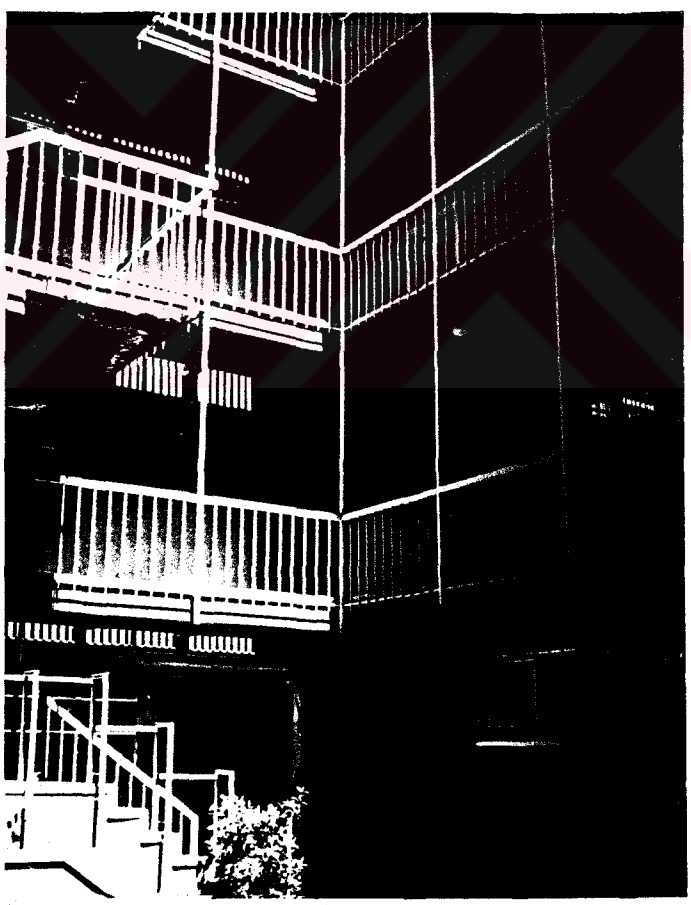

Figure C.8.The Courtyard of Halit Ziya Building

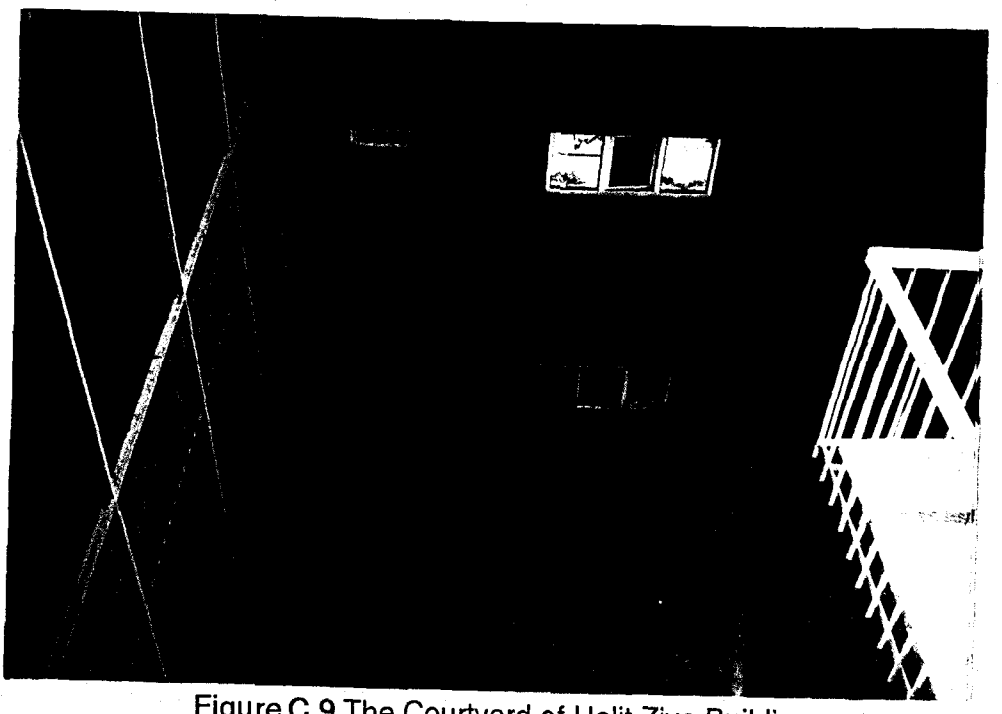

Figure C.9.The Courtyard of Halit Ziya Building

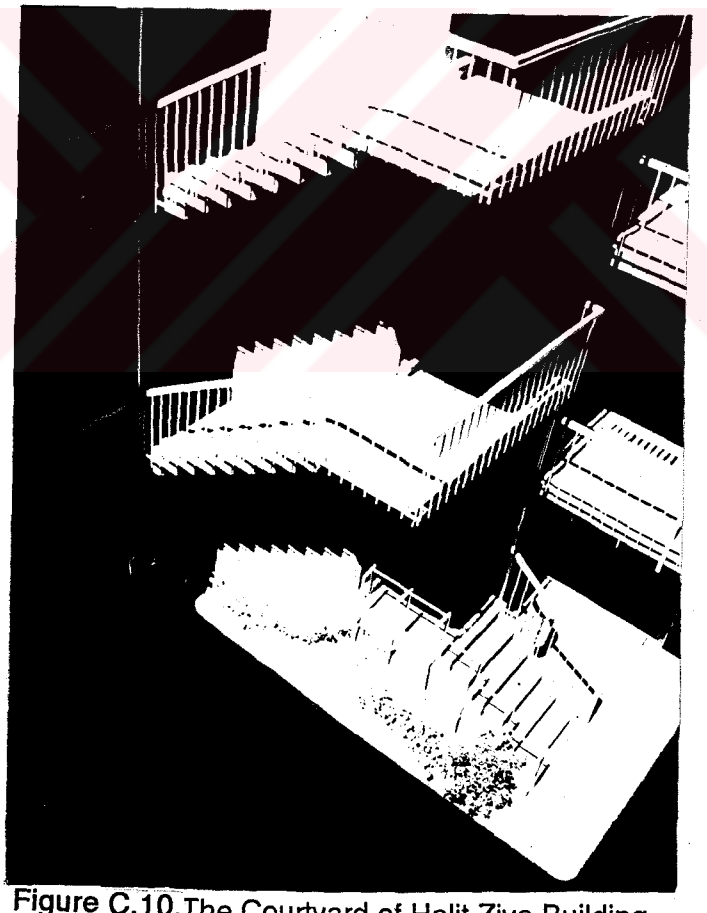

Figure C.10.The Courtyard of Halit Ziya Building

Figure C.11. View of Yesilyurt Building from the Street (Areas A and B are seen)

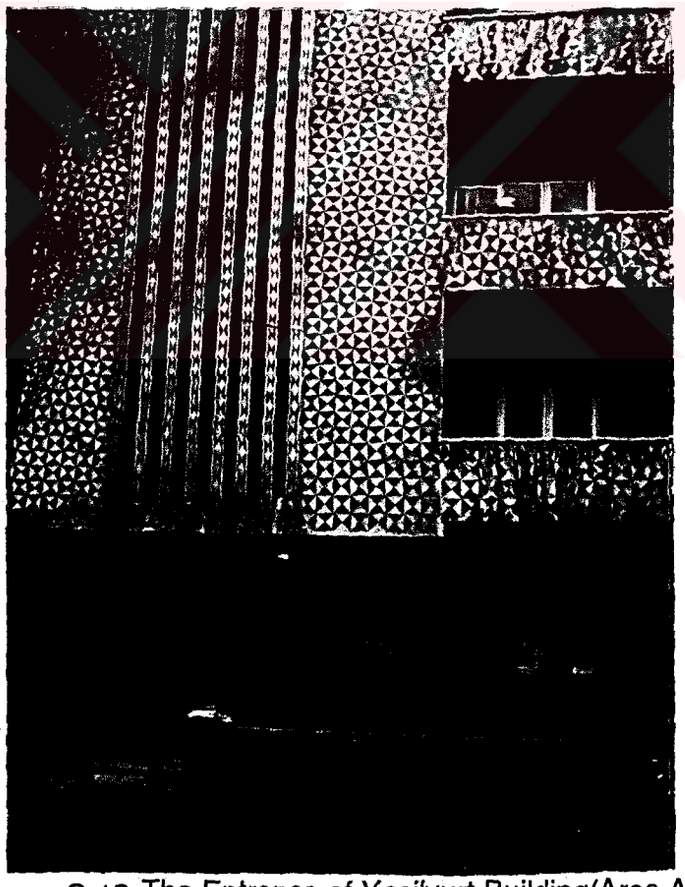

Figure C.12. The Entrance of Yeşilyurt Building(Area A)

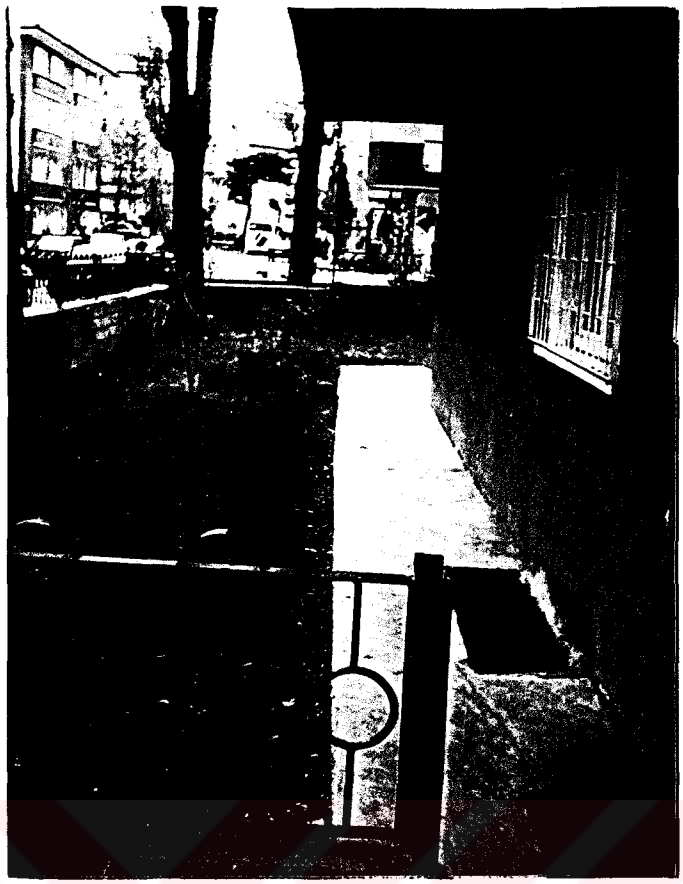

Figure C.13. The Front Garden of Yeşilyurt Building(Area A)

Figure C.14. Entrance to the Car Park of Yeşilyurt Building (Area C)

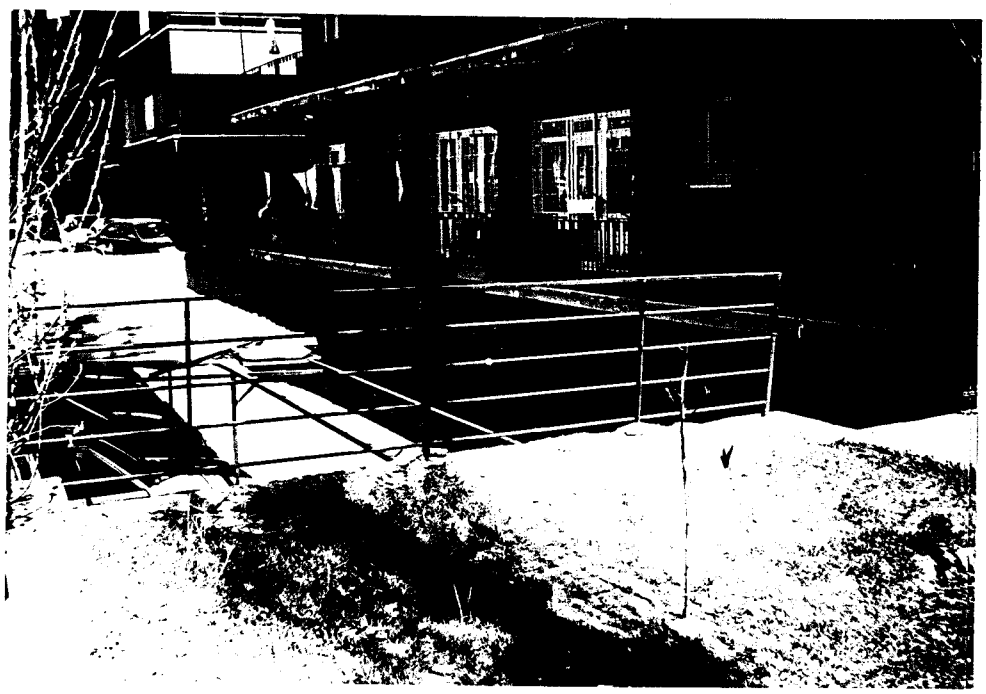

Figure C.15. View of the Garden and Car Park of Yeşilyurt Building(Area A and D)

Figure C.16. The Car Park of Yeşilyurt Building(Area D)

Figure C.17. The Entrance of Yeşilyurt Building Viewed from the Interior

Figure C.18. Interior of Yeşilyurt Building

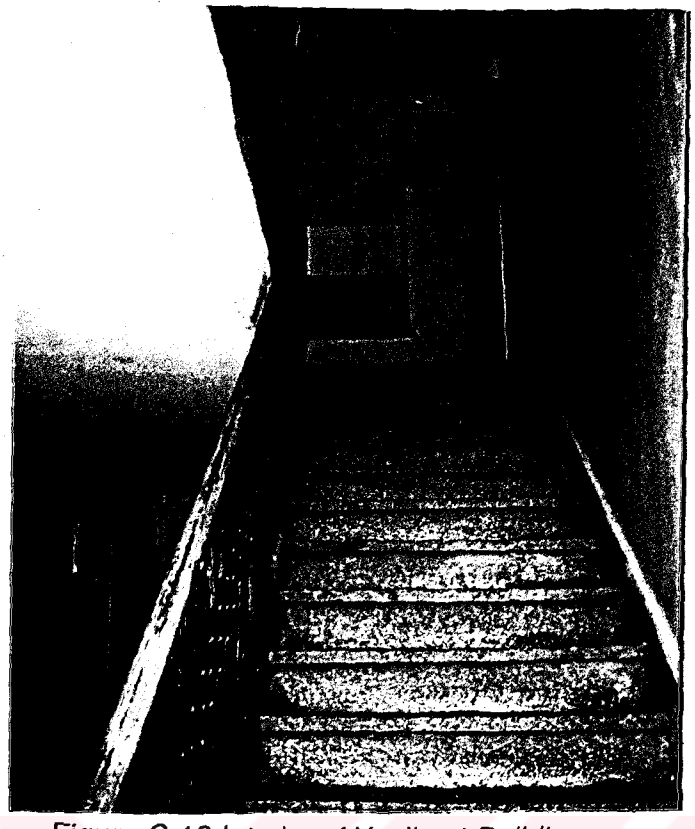

Figure C.19.Interior of Yeşilyurt Building

Figure C.20. Interior of Yeşilyurt Building