

**PEDESTRIAN ZONES AS COMMUNICATION ENVIRONMENTS
CASE STUDY: YÜKSEL PEDESTRIAN ZONE - ANKARA**

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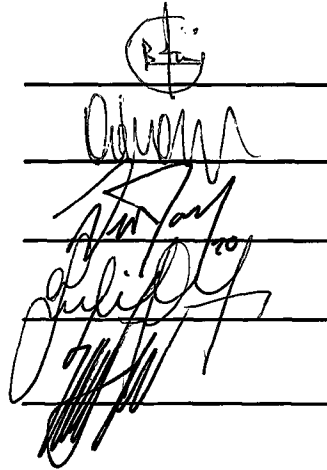
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ABSTRACT

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In the second half of 20th century, the problem of pedestrian circulation became a crucial issue in both the centers and residential areas of cities. Parallel to the increasing number of motorcars, the governing factor in the formation of urban open spaces became the vehicles. The physical arrangements for the requirements of moving and parking vehicles have resulted in restricting pedestrian movement in ever-narrowing sidewalks and reduced the social activity, interaction and communication possibilities of pedestrians. The concept of pedestrian, which became one of the basic concerns in urban planning and design, has gained a different kind of importance and pedestrian zones have widely been applied in this period because of the social benefits provided for pedestrians. Pedestrian zones can not be defined simply as spaces between buildings. They are social environments in which socialization of people

occurs. The socialization process is based on human activities, interaction and communication. This study searches for the causal relationship between social processes and spatial configuration of urban environment in this framework, and tries to describe the physical arrangements influencing the formation and continuation of social processes. The three basic components of the analysis are interaction, physical component and activity component. The study further covers the spatial patterns of human interaction, physical form of adapted spaces and spatial configuration for activities. Yüksel Pedestrian Zone in Ankara is evaluated in the light of such variables, to understand the patterns of human communication and how they relate to the physical components of the survey area.

Keywords: Pedestrian, Socialization, Human activity, Interaction, Communication, Physical arrangement, Spatial configuration

ÖZ

İLETİŞİM MEKANLARI OLARAK YAYA BÖLGELERİ ÖRNEK ÇALIŞMA: YÜKSEL YAYA BÖLGESİ - ANKARA

Levent, Tolga

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20. yüzyılın ikinci yarısında, yaya dolaşım problemi, hem kent merkezleri hem de konut alanları için önemli bir konu olmuştur. Artan araç sayılarına paralel olarak, kentsel açık mekanın biçimlenmesinde taşıt belirleyici olmaya başlamıştır. Akan ve durağan taşıtların ihtiyaçlarına yönelik olarak yapılan fiziksel düzenlemeler, yaya hareketlerinin giderek daralan kaldırımlarda sınırlandırılmasına neden olmuş ve sosyal aktivite, etkileşim ve iletişim olanaklarını azaltmıştır. Bu dönemde, planlama ve kentsel tasarımın temel ilgilerinden olan yaya kavramı farklı bir önem kazanmış ve yayalara sağladığı sosyal faydalar dolayısı ile yaya bölgeleri yaygın olarak uygulanmıştır. Yaya bölgeleri, basit bir biçimde, binalar arasında kalan alanlar olarak tanımlanamaz. Yaya bölgeleri insanların

sosyalleşmelerinin gerçekleştiği sosyal çevrelerdir. Sosyalleşme süreçleri insan aktiviteleri, etkileşim ve iletişime dayanmaktadır. Bu çalışma, sosyal süreçler ile kentsel çevrenin mekansal konfigürasyonu arasındaki nedensel ilişkiyi incelemekte, sosyal süreçlerin oluşumu ve devam etmesini etkileyen fiziksel düzenlemeleri tanımlamayı amaçlamaktadır. Analizin üç temel bileşeni, etkileşim bileşeni, mekansal bileşen ve aktivite bileşenidir. Çalışma ayrıca insan etkileşiminin mekansal örüntüleri, adapte mekanların fiziksel formu ve insan aktivitelerine yönelik mekansal konfigürasyonu içermektedir. Yüksel Yaya Bölgesi bu değişkenlerin ışığında değerlendirilmiş, insan iletişiminin örüntülerini ve bu örüntülerin çalışma alanındaki fiziksel öğelerle ilişkileri anlaşılmaya çalışılmıştır.

Anahtar Kelimeler: Yaya, Sosyalleşme, İnsan aktiviteleri, Etkileşim, İletişim, Fiziksel düzenleme, Mekansal konfigürasyon

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CHAPTER 1

INTRODUCTION

The aim of the study is to develop an alternative approach to evaluation of the physical configuration of pedestrian zones, and in this respect examine Yüksel Pedestrian Zone, as a case. The main concern of the approach is rooted from the relationship between social processes and urban space.

Pedestrian zones, like all other urban public spaces, are spaces where social activities are established. People are walking, promenading, sitting in these spaces, while also interacting and communicating with other people. Interaction and communication among people within the urban environment designate a social nature to pedestrian zones and make them social settings as well as their physical essence. This study searches, in this respect, the causal relationship between social processes -human activity, interactions and communications- and the urban space, subsequently the description of the spatial configurations according to the advantages and disadvantages they provide for these social processes.

Social activities that take place on urban space are spontaneous activities and emerge from all other pedestrian activities. They basically rely on the need for social exchange. Ideas, feelings, knowledge and information, and cultural aspects constitute the media of these social exchange activities. It is generally accepted that facilitation of exchange activities is one of the primary function of cities. According to Robertson (1985):

Cities since the beginning of time have been centers of exchanges, both human and commercial.. the city in its clearest form has been about communality, accommodation, dialogue, protection; a city fostered civic institutions and taught civility. Civic life and activity within a public realm was directed towards high-minded purposes, the fostering of virtue and beauty, as well as pragmatic ones (quoted in Lang (1994,167-70)).

Each social exchange activity in pedestrian zones contains voluntary participation and interaction. These interactions usually take place between "personally unknown and only categorically known people" (Brill,1989,25). Most of them necessitate the attempt to face-to-face communication with others. With these features, interaction and communication become the natural part of social activities.

According to Chapin (1965,77), human communication is one of the most significant element of urban life and is also the answer of the question "why people live in cities". The reason why people come to cities and live in is "to lead the good life" (Hosken,1972,1) which can be achieved only through selecting among variety of choices. Communication has a key role to reach and define the alternative choices of good lives, therefore, it is the first step to fulfill the personal goals. People interact and communicate with others because they have come to share notions of what they will do. Sharing such notions and expectations can take place only possible through communication.

These social processes, when they occur on urban open spaces, become important for socialization and social well-being of individuals. For people, they mean an informal learning process of cities and the social life on them. They provide social inspiration and stimulation for social acts. Additionally, through these social processes, "a process of mutual identification and negotiation" (Corfield,1990,148), which helps redefinition of social

roles and positions in society, can be achieved. They result, therefore, in a continuous social renewal of the self, which, in turn, ends spontaneously with an assistance for social and cultural developments.

Pedestrian zone applications have become popular especially after the Second World War. One of the reasons of this popularity has been the changing "concept of pedestrian", to which a theoretical significance was given. Although "the concept of pedestrian" have been one of the basic concerns in urban planning and design circles since the very beginning of urban history, in the second half of 20th century, it has taken a different meaning because of the new automobile culture which has not only been produced by the improving technology, but also with the dominant urban planning and design understandings that enhance the vehicle use.

"The modern movement is a milestone in the development of 20th century architecture and town planning theory" (Günay,1988,23) and has changed the understanding of circulation systems of previous approaches as all other aspects of cities, with wide open streets "rejecting all the traditional formulas of streets".

The basic aim of modernist planners is that "a city made for speed is made for success" (Corbusier,1971,179) which could only be achieved with a complete segregation of vehicle and pedestrian traffic with a dissection of the street. The concept of rapid movement has not only dominated the shaping of cities, but has also eliminated the street which is, in fact, a social space. The modern movement which "mandate for a streetless city" (Kostof, 1992,235) has tried to solve the socialization problems of individuals through "a redistribution of social life with immense courtyards of apartment buildings in theory,

however, it has not been achieved in practice. Pedestrian movement had become the unwanted, neglected and abused stepchild of urban enterprise, according to Greenberg (1995,75).

The negative effects of automobile could have been defined from different points of view; its fume may negatively affect people as well as its noise and vibrations, they may cause harmful accidents for pedestrians. However, the most important one for the urban design framework is the imposition of their own scale on spatial configuration of urban space. With the increase in number of vehicles, motor vehicles began to use most of urban open spaces for moving or parking. Pedestrians have been forced to leave the urban open spaces to motorcars. The road and street patterns for vehicles began to manipulate the physical order of urban environment. The main factor, which affects the utilization of exterior spaces, has become the motor vehicle to which the priority in the street design was given.

The result has been a significant restriction of pedestrians in a limited, ever-narrowing sidewalk environments. This restriction reduces the opportunities for human social interaction and visual enjoyment. People have begun to lose personal contacts through the changes in perception of urban space with the increasing use of vehicle. However, human nature and the needs of human remain the same; the need for information, the need for love and the need for community are still present which can only be satisfied with personal interactions and face-to-face communication.

It is obvious that these social processes are not aspatial processes. Their formation and continuation are directly related with the space. They are, as Webber (1967,80)

mentions, "spatially structured processes" and pedestrian zones are primary milieu of these processes.

According to Webber (1967,89), although urban planners and designers are aware of the fact that spatial arrangements for activities have influences on interactions and communications they do not deal with the spatial patterns of information flows within the urban system and never depict the city as social processes operating in space. They use density and land-use patterns to explain the relationship between social processes and urban space, which are not sufficient tools. The physical configurations should be considered with their influences on social processes.

One of the basic reasons of formation of pedestrian zones is to create a safe and pleasant environment for pedestrian, to promote the "human activities in number, duration and scope" (Gehl,1987,52) and, therefore, to achieve a concentration of interaction and communication. Beside their locations in the urban environment, their physical configurations are also important for promotion of human activities and interactions. The emphasis of the study is, therefore, not only on urban forms, but also on its relations with real life and user activities, with respect to how people use the urban space, or pedestrian zone, in particular. Such a consideration gives clues about the success of urban world, because as generally accepted, "the proof of the success of the urban world is in its use" (Hosken,1972,28).

In this general framework, the second chapter of this study focuses on the ideological background of pedestrian zones, especially within the second half of the 20th century, in which the concept of pedestrian had gained a different theoretical meaning. This has resulted from the increase in

the number of automobiles and therefore, the competition between pedestrian and the motor vehicles for the same piece of urban environment. This phenomenon brought new dimensions to urban planning and design circles. The first part of this chapter analyzes these changing understanding from two different points of view -progressist and culturalist design ideologies-. The second part of this chapter examines different approaches of pedestrian zone design and the design of new urban streets taking pedestrian into consideration, with their goals and achievements.

The third chapter basically concentrates on the effects of pedestrian zones. Although they vary in terms of their locations and the design techniques employed in their creation, there are three main categories. The effects of pedestrian zones, in general, are the economic effects and economic revitalization, improvements in environmental quality with landscaping and other physical objects, and the social development of users. The focus of this study is on the social welfare of pedestrians, the significance of which is also accepted by planning and design circles. The examination of social welfare in the case of pedestrian zones is carried out with a special emphasis on the content of urban social life.

The following chapter is about the analysis of social processes and their spatial dimension. In the first part of this chapter the social processes which are crucial for "socialization" of pedestrians are examined. These are the social exchange activities, interactions and communications. These are spatially structured social processes. Therefore, in the second part of this chapter the spatial counterparts of this view is analyzed. The components of the analysis are the spatial patterns of human communication, the spatial structure of physical

space and the spatial configuration in which various types of activities are distributed. By using these components, which are interaction component, physical component and activity component, the complex and interconnected relations between interaction-activity and spatial characteristics of urban environment are discussed.

The fifth chapter is the chapter where case study is held. In the case of "Yüksel Pedestrian Zone", these critical points are evaluated. The reason for choosing Yüksel Pedestrian Zone as the case study is to examine the relationships between the social processes and its spatial configuration and answer the question whether the physical configuration of Yüksel Pedestrian Zone suits the social processes or not.



CHAPTER 2

PEDESTRIAN ZONES

It is obvious that from the very beginning of the urban history walking has been the first and the foremost type of transportation. However, within the second half of 20th century, the concept of pedestrian has gained a different kind of importance in planning and design circles because of the problem arisen from the rapidly increasing number vehicles which began to fill the urban open. In this period, the idea of creation of pedestrian zones had reached to its peak because of the competition between pedestrian and vehicles for the same space.

This movement has been directly effected by the dominant urban planning and design ideologies, which are the progressist and culturalist design ideologies. Although their attitudes are different, especially in the pedestrian environment concepts, both of these have aimed the same: to create safe and pleasant environments for pedestrians and their activities.

2.1. THEORETICAL BACKGROUND OF PEDESTRIAN ZONES

2.1.1. PROGRESSIST DESIGN IDEOLOGY

The progressist design ideology, or "the modern movement is a milestone in the development of 20th century architecture and town planning theory" (Günay,1988,23), with Le Corbusier as the basic ideologist. It is the most powerful approach that influenced the urban world in 20th century.

The reason that pedestrian zones become popular in planning and design circles can be tied to the changes in cities with this ideology.

The changes of cities, in this period, depend generally on the separation of "urban functions -housing, work, recreation and traffic-" (Le Corbusier,1971,167). The movements with vehicles support the development of this idea. The complex functional structure of cities began to be solved. Another impact of these morphological changes in cities became the separation of people from others and the urban public spaces. People began to move "without the necessity of actual being on space" (Lofland,1989,20). The relationships among people on segregated and mostly enlarged urban environments began to be set through new movement types with vehicles, rather than walking. The transformation process of movements has also affected the design of circulation elements.

Kostof (1992,232) mentions that Le Corbusier had changed the understanding of circulation systems of previous approaches as all other aspects of cities, with his project "A Contemporary City for Three Million", presented at 1922 (Fig.2.1). According to Kostof (1992,232-3), the closed vistas transformed to wide open streets with "rejecting all the traditional formulas of streets". He further mentions that the modern street becomes a new type of organism, a sort of stretched-out workshop.

With separation of urban functions and its spatial reflections on circulation elements in cities, it became difficult to enclosure of space in the conventional manner of city-making according to Kostof (1992,233), and the result has become that the street, in a sense, is separated from buildings.

In Article 16 of Athens Charter of 1933, the CIAM organization had declared:

The house will never again be fused to the street by a sidewalk. It will rise in its own surroundings, in which it will enjoy sunshine, clear air, and silence. Traffic will be separated by means of a network of foot-paths for the slow-moving pedestrian and a network of fast roads for automobiles. Together these networks will fulfill the function, coming close to housing only as occasion demands. (Corbusier, 1973, 57)

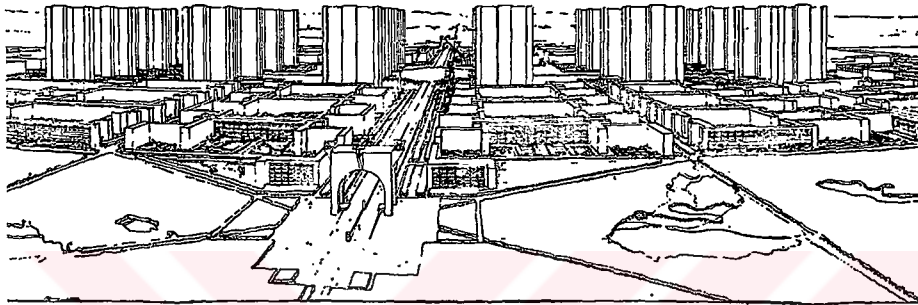


Fig. 2.1. A View from "Contemporary City for Three Million People", by Le Corbusier

In the center is the cite (the business district), with office towers surrounded by lower commercial and entertainment buildings. Clustering around it on an diamond plan are apartment blocks. On an angled linear redent principle; at the corners are further apartment blocks enclosing courtyards. The city is bisected by the elevated highways for fast traffic 40 meters wide; other main road cut across the grid. Between them, the ground is reserved for pedestrians.

Source: Kostof (1992,233)

The basic aim of modernist planners is that "a city made for speed is made for success" (Corbusier, 1971,179) which could only be achieved with a complete segregation of vehicle and pedestrian traffic (Fig.2.2) which becomes the basic idea influencing the physical organization of circulation elements.

Although there are different segregation models, multilevel vertical segregation has been widely used in modern

movement, because it seemed as the most suitable type of segregation model to speed up vehicle traffic. The applications of it became the inseparable part of rational urban planning and design both in concept and practice. However, as Kostof (1992,234) notices the idea of the dissection of the street in such a way becomes a final step in a long standing and widespread reformist agenda to eliminate the street as a social environment" (Fig.2.3).

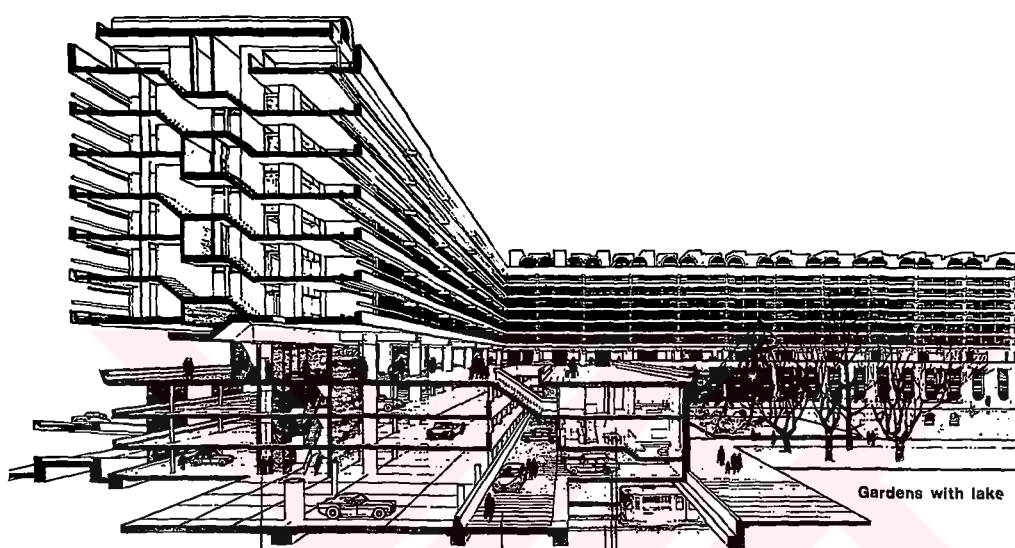


Fig. 2.2. Barbican development by Chamberlain, Powell and Bon, in London
Source: Kostof (1992,238)

In fact, the modern movement which "mandate for a streetless city" (Kostof, 1992,235) has tried to solve the socialization problems of individuals through "a redistribution of social life with immense courtyards of apartment buildings" in theory, however, it has not been achieved in practice. According to Gehl (1987,47), this is because of that the modern movement made no significant mention to social aspects of design of buildings and urban open spaces (Fig.2.4).

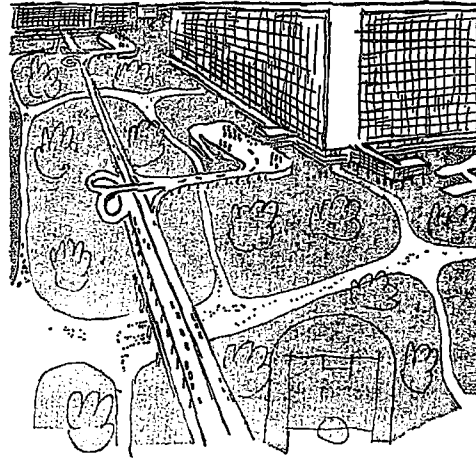


Fig. 2.3. A Sketch by Le Corbusier from *La Maison des Hommes*, 1942

100 percent of the ground is given over to pedestrians. Cars roll along their motor roads 5 m. wide above ground. The impossible became possible. Separation of the vehicle from the automobile has been accomplished.

Source: Kostof (1992,235)

1. The Unité d'habitation, Marseilles

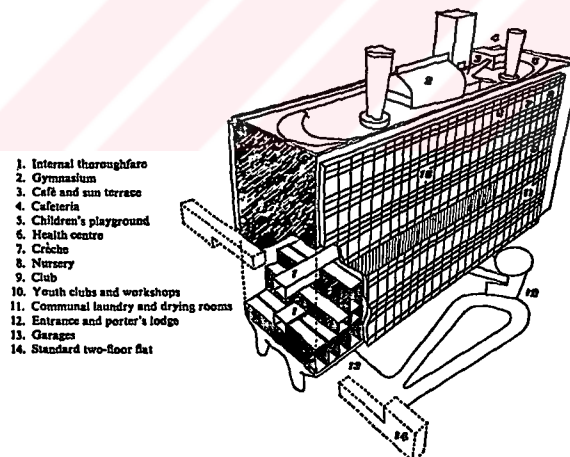


Fig. 2.4. The Unité d'Habitation, in Marseilles, by Le Corbusier

The cross section shows the various components of the scheme: the community facilities on the roof, the shopping strip in the center, the housing layout of the apartment units, and the skip-stop elevator system employed by it.

Source: Lang (1994,52)

There had been a lot of changes on cities with the great influence of modern movement as Lofland (1989,19-20) mentions. According to Lofland (1989,20), this period is the one in which significant changes had begun in the formal, functional and also social aspects of cities. The idea of creation of pedestrian zones is powered with the result of these changes.

What modern movement had tried to do is to shape the cities according to the realities of industrial society, especially permanently improving technology. Lofland (1989,20) states that these technological improvements had also influenced the changing process of city structures. There have been two significant results. She further states that innovation in forms of transportation allowed cities to be much larger in area and innovation in communication and construction technologies to enclose many more activities than the cities of past had. Lofland (1989,20) claims that:

... -enlargement and enclosure- together made possible the separation of work place from residence, made possible the development of highly specialized and large work places (e.g., factory districts), made possible the development of homogenous and large areas of residence (e.g., working class neighbourhoods), and made possible the siting of much round-of-life activity within the place of residence or neighbourhood, and, eventually, with the introduction and widespread personal ownership of the automobile, made it possible for an individual to connect pieces of widely dispersed space without the necessity of actual being, in any socially meaningful sense, in the intervening spaces.

Urban planning has tried to control and guide these changes resulted from enlargement of urban spaces and enclosure of new functions, and, at the same time, transportation planning, whose basic assumption is keeping traffic moving (Trench,1990,2), had put all emphasizes on vehicles rather than pedestrian. Additionally, urban design, as an

application mean of planning decisions, had been aloof to a physical organization of urban space which can enhance better social lives of individuals and communities. Parallel to these urban planning and design approaches planning, there are two important reasons why cities become socially arid. The first one is the sub-urbanization movement, which negatively effects the user densities in city centers. The other is related to the increase in use of motor vehicles, which reduces the interaction and communication on urban environment because of the features of this kind of movement.

According to Francis (1987,23), with sub-urbanization movements, "many people choose to leave the city in search of a better life outside". They believed, and still believe in that the countryside could provide pleasant, supportive living environment than the city, which results in a rise of privacy, especially in American way of life, according to Francis (1992,23). This ends with a maltreat of social life in city center because the diversity and plurality of users is reduced. "Some suburban developments even without sidewalk requirements" (Greenberg,1995,80) has restricted the experiences that people should live as pedestrians for the benefit of their social development.

Francis (1987,23) mentions that the other reason of social aridness of cities is the rise of mass transit, followed by increasing speeds in transportation and, eventually, by the automobile and, therefore, the spatial rearrangements of the road sections done according to motor vehicles in the whole city (Blumenfeld,1967,122-38). They changed the social life on the urban streets. Automobiles and other mass transportation systems has taken people away from direct involvement with the streets, and activity on them. They made it possible to replace active participation in spontaneous social activities with a drive to see selected

friends and attractions because people began to move "without necessity of actual being on space", according to Lofland (1989,20).

The new types of movements with different types of vehicles, created different types of reactions to urban spaces and urban social life. According to Paul Klee (1920) (quoted in Bacon (1982,11), this brings a shift from the condition in which environments effect and form individuals, to the opposite one in that permanently changing individuals try to transform urban space for the newly emerging needs.

According to Greenberg (1995,75), pedestrian movement had become the unwanted, neglected and abused stepchild of urban enterprise. This idea had caused "detriment of city's life processes", and the increased needs of vehicle traffic had become the preeminent organizing themes of urban planning and design with forgetting that in order to do most of the things that people live in cities to do can be achieved by getting out automobile.

Especially, after the emergence of automobile culture, the vitality of streets began to ebb as it become increasingly difficult for pedestrian to cope with the noise and pollution caused by the encroaching automobile culture. The circulation spaces have been fulfilled with the vehicles and environments for pedestrians are restricted.

2.1.2. THE CULTURALIST DESIGN IDEOLOGY

In the second half of 1950's, the culturalist design ideology began to criticize negative social aspects of modern movement and directly effects the formation of pedestrian zones, namely the new urban streets considering pedestrians. This ideology has tried to solve the social

problems with the physical configuration of space, but only within the formalist tradition.

Beside the four functions, new elements of city were added to CIAMese design approach, like the core of the city and historical center. According to Günay (1988,30), the core of the city is the basic subject in CIAM 8, at 1951, in Hoddeston, England. Such ideological developments in modern movement brings out a new consideration to pedestrian. However, other approaches, according to Günay (1988,34), like the design of new urban pedestrian streets is directly related, especially with the second movement of culturalist design ideology.

Günay (1988,26) states that culturalist ideology has tried to realize both the urban structure and architecture of pre-industrial society with the guiding works of Camillo Sitte. Choay (1969,104) notices that Sitte had made the transition from pre-urbanism to urbanism in the culturalist model and he adds:

Space is continuous and buildings have meaning only insofar as they are related to each other; for Sitte "the modern disease of isolated construction" is to be condemned... What is more, to function effectively, urban space should be enclosed... The main requirement for a plaza, as for a room, is the enclosed character of its space. (Choay,1969,104-5)

At the beginnings of 20th century, "the Garden City of Ebenezer Howard became an important step in the development of city planning practice" (Günay,1988,27) and space understanding. Günay (1988,27) claims that although the Garden City emerged with the progressist thinking, the result was in a culturalist form and made culturalist thinking more clear.

However, this ideology had a continuous weakness till the end of Second World War, and again gained the importance

with the emergence of English New Towns, according to Günay (1988,27).

The second movement of culturalist planning and design ideology came with the Team 10, according to Günay (1988,30). The theoretical support was provided with Sitte's works and the garden city movement. Günay (1988,33) mentions that "the ideology of Team 10 may be considered as a resurgence of the culturalist ideology". In this movement, there is an adaptation industrial society's space understanding to that of the pre-industrial city "without rejecting the realities of industrial societies" (Günay,1988,26).

According to Günay (1988,34), "the second movement was not against the functionalism, but they were against the rigid and diagrammatic separation of functions, creating mechanical environments" and urban lives. He adds:

Hence, there appeared new urban form and architectural analyses which would try to regenerate the neglected assets of organically developed environments by the people or of the pre-industrial city (Günay,1987,34).

With its basic features, the culturalist design ideology established powerful dimension for creating new urban streets, especially new pedestrian streets, with which pedestrian were taken into consideration. According to Günay (1988,37), the features of culturalist ideology can be summarized as:

- particularism where each habitat has its own identity
- use of the line (pre-industrial pedestrian street) as the unifying element instead of open spaces
- continuity of elements to make up macroforms, instead of discontinuous composition of them

- variety of volumes and spaces
- idea of groundscraper for horizontal communication

2.2. DIFFERENT APPROACHES FOR CREATING PEDESTRIAN ZONES

There are different approaches of creating pedestrian zones. These approaches can be examined in two categories. The first category includes pedestrianization which means creating pedestrian zones in existing urban environments. The basic principle of pedestrianization is removing the vehicles from existing urban streets with different segregation models. The second category includes creating new urban streets, such as woonerven, pedestrian indoor streets and new pedestrian streets.

2.2.1. THE PEDESTRIANIZATION

Francis (1987,24-5) points out that pedestrianization is one of the strong and influential street design movement that have changed the social environment of many cities. According to Kostof (1992,239), with them, the precedence was taken again by pedestrians over the moving and parking automobiles.

As Kostof (1992,239) mentions, in the immediate post-war years, city planners had experimented with the transformation of certain business streets into pedestrian zones and these projects seemed successful and duplicated across Europe. Only in Germany, there were "63 pedestrianized areas by 1966, 182 by 1972 and 370 by 1977" (Kostof,1992,239-40). According to Kostof (1992,240), one of the most extensive of these pedestrianized systems is in Nürnberg, where these pedestrian streets are supplemented by a dense network of shopping arcades and public parks.

According to Serfaty (123), this popularization of pedestrianization is related with the social revitalization of cities. There are three related forms of "attitudes against this social aridity of cities" which affects the idea of creation pedestrian zones (Serfaty,123).

The first one is related with new cities, especially in Europe, according to Chatin (1975) (quoted in Serfaty (123) refers. This understanding searches, without criticizing the theoretical roots of functionalist urbanization a social rehabilitation with creation of dense social, cultural and commercial centers in these new cities. Although it had been tried to give the traditional ability -retail trade and collective facilities- as the centers of social life, it could not be achieved because of lifestyle imposed by suburban developments.

The functionalist urbanization is criticized in the second understanding. The second understanding expresses itself in the demand of integration the new open spaces with the history of cities and aims "to materialize the idea of common patrimony" (Serfaty,136). It, as firstly, does not tie the urban open spaces to the presentation of personal power and leisure activities. Serfaty (123-4) states that the idea of patrimony brings a recognition of physical elements of urban public with the necessary significance and worth given to them. However, with the transformation of symbolic worth of these spaces to financial worth, the uncontrollable land speculation becomes the only rules, "negatively effecting the social life and public realm" (Serfaty,136).

According to Serfaty (123-4), the last understanding emerged with the idea of conservation of the antique and historic remains in existing urban web, not only the

physical elements, but also "some social aspects" of cities (Serfaty,124).

There are a lot of successful examples of pedestrianization. Some of the most well-known examples are Storget, Kalverstraat, Borgo Stretto and San Marco.

A well-known and successful example, according to Kostof (1992,240), is the Storget in Copenhagen, where five existing streets running from the Town Hall to the city's central square have been linked and kept free of motorized traffic (Fig.2.5).

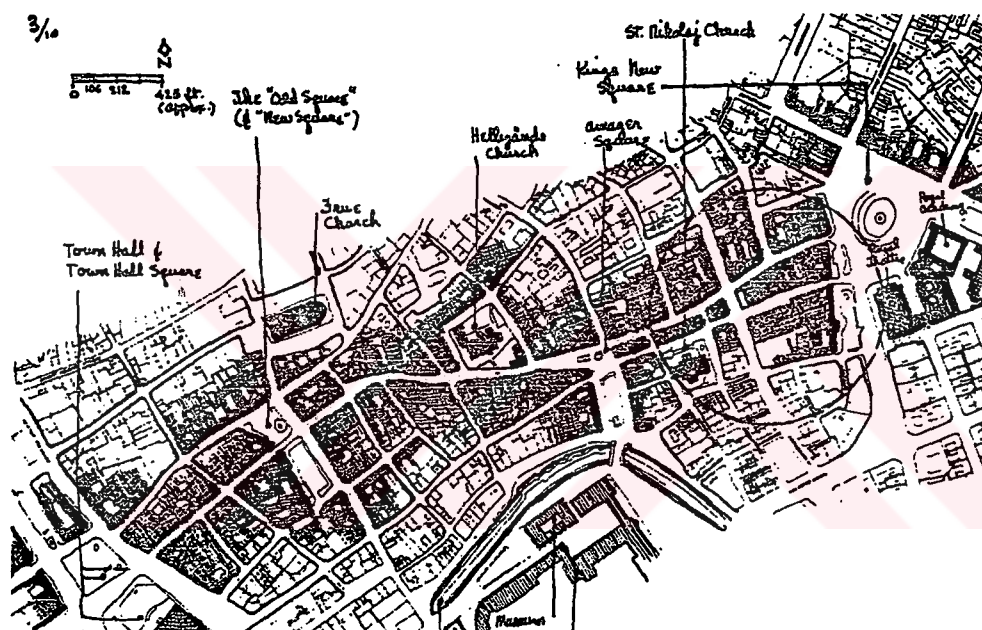


Fig. 2.5. Storget, Copenhagen

Source: Wolfe (1962,35)

According to Wolfe (1962,35), it combines formalism and informality in Renaissance and Medieval squares and the success of it comes from this feature. Gehl (1987,39) states that, when the main street was converted to a pedestrian street, many critics predicted that the street would be deserted because "city activity just doesn't

belong to the northern European tradition". In 1980's, however, this major pedestrian street, plus a number of other pedestrian streets later added to the system, are filled with people walking, sitting, playing music, drawing and talking to each other, according to Gehl (1987,39). Although the city has not grown over the past fifteen years, there had been a tripling of social and recreational activities in the same period after the pedestrianization of Storget (Gehl,1987,52).

Kalverstraat is another successful example. According to Wolfe (1962,38), "the Kalverstraat, part of the medieval dike along the Amstel River, once used as a cattle market, has been shopping center since the 19th century" and land-use emphasis, in terms of the shops, has changed over the past century from primary foodstuffs to city wide oriented goods, such as clothing. For this reason, city officials decided a physical reorganization in which pedestrian is in the center (Fig.2.6).

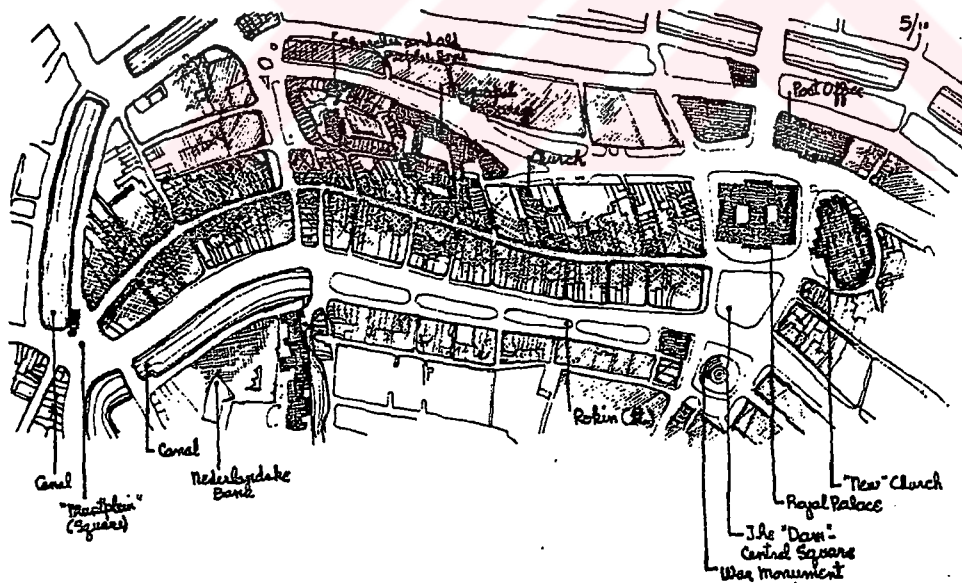


Fig. 2.6. Kalverstraat, Amsterdam
Source: Wolfe (1962,38)

Kalverstraat has been one way for all vehicles since 1928, but since 1932 they had allowed service vehicles only in certain entrances and going in certain directions. According to Wolfe (1962,36-38), the end result became "a shopping street with a definite pedestrian emphasis as almost a matter of traditions" with connecting and varying openings, limited perspectives, and significant buildings adding emphasis to the scene.

Another successful example is Borgo Stretto in Pisa. According to Wolfe (1962,40), Borgo Stretto provide suitable conditions for all people with its arcades and covers, although there is also vehicular traffic. "Traffic flows from Corso Italia; across the bridge over Arno into Ghibaldi Square; into the corridor, Borgo Stretto, which then opens into via Oberdan, the other side of the hourglass (Wolfe,1962,40) (Fig.2.7).

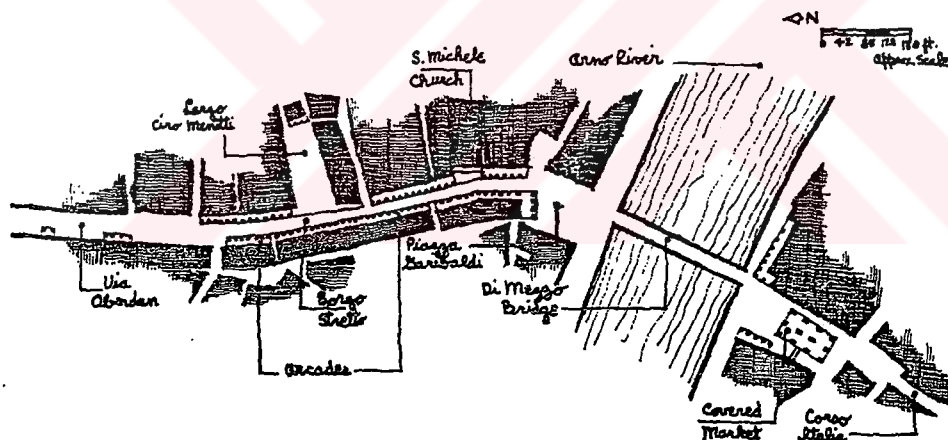


Fig. 2. 7. Borgo Stretto, Pisa

Source: Wolfe (1962,40)

Wolfe (1962,40) claims that San Marco is the epitome of the urbanistic pedestrian milieu. It connects the social, religious and the political center of the city. Wolfe

religious and the political center of the city. Wolfe further states that this is one of the most exciting pedestrian streets in the world with shops and restaurants passing through open spaces of intimate and great scale and containing perspectives limited by changes of direction and visual stops (Fig.2.8).

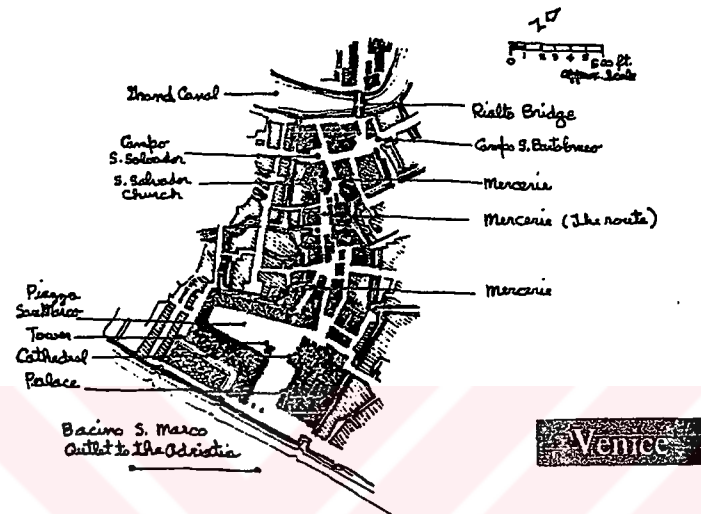


Fig. 2.8. San Marco, Venice
Source: Wolfe (1962,35)

2.2.2. NEW URBAN STREETS

The aridness of city social lives has also effected the emergence of new urban streets that are taking the concept of pedestrian into consideration. These are woonerven, private indoor streets and the new pedestrian streets. The most influential one in this group is the new pedestrian streets.

2.2.2.1. Woonerven

Francis (1987,26) notices that the idea of woonerf falls under the broad theme of "street livability and

sociability" and recognizes the importance of street environment for social life of cities. They are not rejecting automobiles, but restricted the movements of them so that pedestrians can freely use the space. According to Francis (1987,26), the emergence of woonerf is directly related to the opportunities for greater safety and security and, therefore, it promotes social contacts, particularly on residential streets. They create suitable conditions, especially for "parochial realm" (Lofland,1989,19) rather than public realm.

2.2.2.2. Private Indoor Streets

Creation of private indoor streets has been another movement taking the pedestrian into consideration according to Francis (1987,27). He further mentions:

In contrast to the openness and plurality of urban streets, these new developments stand aloof from the everyday city environment (Francis,1987,27).

The understanding of creating private indoor streets includes the application of "public pedestrianization techniques, such as auto-restriction and extensive landscaping indoors" (Francis,1987,26). According to Kostof (1992,240), in these examples, asphalt was replaced by concrete or tile pavements punctuated by shade trees and planter boxes, fountains, benches and kiosks. He (Kostof,1992,240) adds:

It is artificial and sanitized design vocabulary, part regional shopping center, part Disneyland.

The most important aspect of these indoor malls and closed atriums is that they provide protection from undesirables with displacement of some social groups which counteract the nature of public life.

Therefore, this movement also means a privatization of the urban landscape with a commercial venture where retail sales determine the social design of public space so that private developer can better control use and user according to Francis (1987,27). As Kostof (1992,238) states:

... these examples of the continued privatization of public space work against the street as the primary place for social interaction. They try to replicate its experience in a controlled environment which drains its energies, but can not quite match its vitality.

2.2.2.3. New Pedestrian Streets

Most influential one among these new forms of urban streets is the new pedestrian streets.

"The car-free shopping streets in the old urban cores inspired the design of new streets that had the same quality" (Kostof,1992,240). New pedestrian streets, especially, try, in this sense, to achieve intense human activity as pedestrianized areas. Because the cities have been exposed to social aridnesses, new pedestrian streets began to emerge in European cities. With them, a social enhancement, as it has been achieved with pedestrianization, had tried to be formed. Lijnbaan in Rotterdam is the most well-known example.

Lijnbaan was designed by J.H. van den Broek and J.B. Bakema between 1951 and 1953. As Günay (1988,34) states "for Bakema and van den Broek, the idea is the establishment of association of various groups of buildings offering different choices and the line is used as linking elements of various groups". This system had applied in the Lijnbaan Pedestrian Street Project in Rotterdam, by Bakema and van den Broek, "as members of Team 10" (Günay,1988,34) (Fig.2.9-2.10).

In the Lijnbaan Project, the low rise shops were concentrated on a pedestrian street backed by high-rise housing slabs (Günay,1988,34; Kostof,1992,240).

According to Günay (1988,35), the basic idea has been to break down the "Unite d'Habitation" into groups of both low and high-rise continuous sprawl of buildings.

Wolfe (1962,38) states that "in a departure from the original traditional plan for rebuilding the city after the War", Lijnbaan combined housing and future store-and-office space, pedestrian streets with adjacent shops. According to Wolfe (1962,38), the covered walks, landscaping, trees, sculpture are result of the synthesized efforts, however, the missing thing is the non-directional square, a feeling of building cycles, and closed vistas and "reflections (in the continuous large glass facades) are a significant aesthetic idiom in their new dominance".

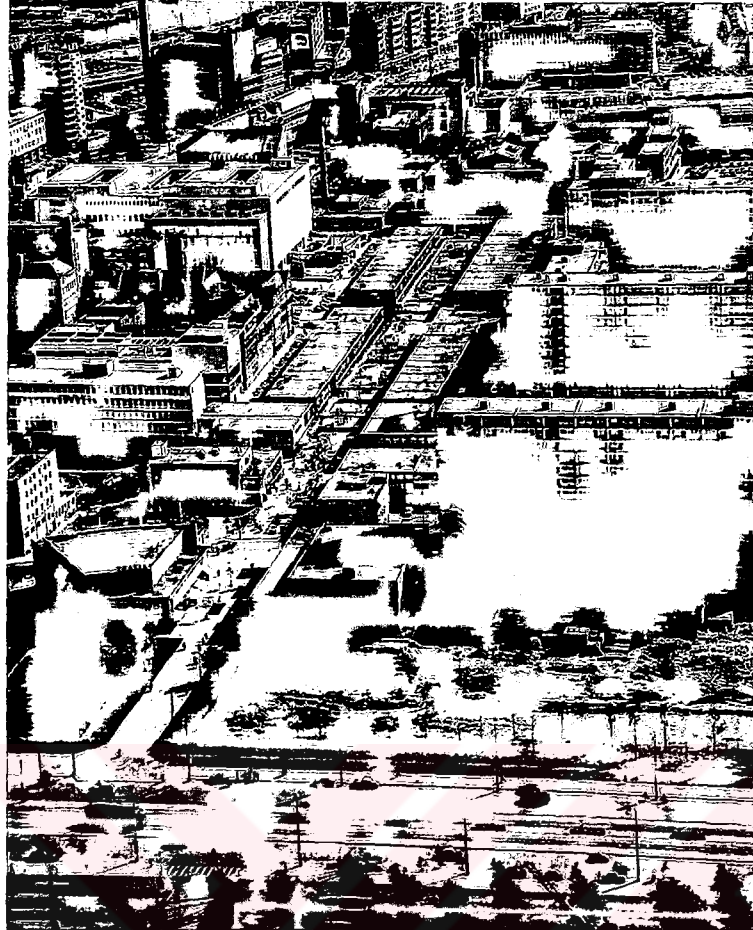


Fig. 2.9. Lijnbaan, Rotterdam
Source: Kostof (1992,243)

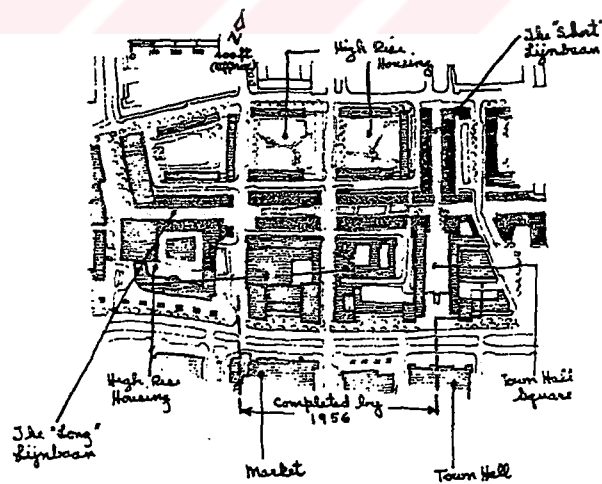


Fig. 2.10. Lijnbaan, Rotterdam
Source: Wolfe (1962,38)

CHAPTER 3

THE EFFECTS OF PEDESTRIAN ZONES

As it is generally accepted pedestrian zones have positive effects on urban social, physical and economical scope because creation of them is not only a physical reorganization, but also "a social and economic reorganization of space" (Suher,1992) (Rapaport,1987,80-1).

3.1. THE EFFECTS OF PEDESTRIAN ZONES

3.1.1. ECONOMIC REVITALIZATION

Pedestrianization have strong relations with the "urban economy and economic revitalization" (Suher,1992,246). As Suher (1992,247) points out and the cases in Copenhagen (Gehl,1987,39) and in Strasbourg and Malmo (Serfaty,125-35) shows, pedestrian zones cause an improvement in retail trade nearby and generation new investments, mostly related with trade by private entrepreneurs and cultural-social investments by local governments.

With this characteristic, pedestrian zones affect the density and the distribution of urban land uses, which is true especially for the commercial activities. Because planners, sometimes, have difficulties by directing the spatial distribution of urban land uses, creation of pedestrian zones has become a popular tool to control and guide the urban land uses.

A good example of this phenomenon can be seen in pedestrianization process of "Place de la Cathedrale", according to Serfaty (126). Before the pedestrianization, the only commercial activity was a pharmacy in the area. However, after pedestrianization, a commercial specialization -most of them is related with luxury goods- had been observed. The same processes had seen in other pedestrian zones in Strasbourg, Malmo, and Copenhagen.

3.1.2. EFFECTS ON ENVIRONMENTAL QUALITY

Another important effect of pedestrian zones is related to the improvement of the environmental quality. According to Suher (1992), the tools used by pedestrianizations, such as segregation of vehicle and pedestrian traffic, "structural landscaping" (Kaplan,1992,270; Nasar,1990,83), have almost always resulted in an improvement of environmental qualities and helps the "physical image to be more influential and impressive" (Suher,1992,246). In addition, the preservation and conservation of the historical and urban sites, which can be usually the subject of pedestrianization, may improve the physical image of the urban environment.

3.1.3. SOCIAL WELFARE

The one of the most significant effects of pedestrian zones is the "improvement of social welfare of inhabitants or newcomers" (Suher,1992,246-9). These improvements emerge because they create "better and safe conditions" (Gehl,1987,173-83) for pedestrian activities. They had been put forward basically to solve the congestion of vehicle and pedestrian traffic with a new physical organization for the benefit to the latter one and create a new spatial organization of urban functions. However, they give chance to different social groups and people to live together and,

therefore, positively influences intensity of interactions. This has helped, directly, to achieve a new social reorganization more than expected and thought. "A new social life and livability, especially in central business districts" (Suher,1992,246-9) comes with pedestrian zones which effects the number, duration and scope of pedestrian activities positively. With these pedestrian activities, the chance of face-to-face communication increases so that people could gain a lot of messages and information about the others and the physical environments. These messages and information help people to test/judge their social roles and positions in the society and to be more socialized.

According to Suher (1992,247), the physical layout and social order emerged with pedestrian zones help an ease perception and observation of people and activities, and then, the learning of urban social life. These processes, at the same time, are "accumulation processes causing changes of forms of human behaviours and human relationships on urban spaces" (Keleş,1978) and in this context, they are "the signs of social changes" (Kongar,1979), which positively effect the social lives and socialization processes of people. In most cases, these developments have resulted in "an influential social image of cities" (Suher,1992,246). According to Suher (1992), this influential social image of cities has put important advantages for actual being of a city dweller and she (Suher,1992) adds that this assessment is valid especially for the newcomers, or the ones which have difficulties to take part in the actual social life, beside the permanent inhabitants.

3.2. THE SOCIAL PROCESS ON PEDESTRIAN ZONES

The most important effect of pedestrian zones is "the new social life" and the enhancement of the process of socialization. Therefore, an assessment on pedestrian zones should include the process of socialization, from social activities to face-to-face communication among people, to be more comprehensive and discuss the physical aspects of pedestrian zones, in this respect.

3.2.1. PEDESTRIAN ZONES AS SOCIAL SPACES

The cases in urban history shows that "the most important aspects of urban social life is that it has been emerged on public spaces" (Lofland,1989,19). Pedestrian zones as other public spaces are also the spaces on which urban social life emerges and continues.

Kostof (1992,123) mentions that "cities of every age have been fit to make provision for open places that would promote social encounters and serve the conduct of public affairs". The aim of pedestrian zones, therefore, as Kostof (1992,124) mentions, is to ensconce community and to arbitrate social conflict. According to Petrus Berchorious (quoted in Kostof (1992,123):

Since piazzas are areas in villages or cities, empty of houses and other such things and of obstructions, arranged for the purpose of providing space or set up for meetings of men, it should be remarked that in general through piazzas the condition of man in this world can be discovered.

Pressman (1987,40) states that, as the agoras, squares, etc, which had been designed and used for exchange of information, material goods, and ideas, pedestrian zones are also "socially intensive spaces" which should provide suitable conditions for city social life and become agents

of social contacts, reflection and vitality and he further claims that:

... a sensitivity to the human condition and its expression in physical terms characterizes a "new" urbanity in city planning and design. Priority should be given to the qualitative aspects of urban life, with a focus on increasing and improving urban activities.

According to Pressman (1987,40), that this "new" urbanity associated with two notions. The first notion is how to plan and design the city and the second one is understanding how to enjoy and use urban environment. "Essential to both notions is the social activity of the city of individuals and the urban social life" (Pressman,1987,40).

3.2.2. THE CONTENT OF URBAN SOCIAL LIFE

To understand the social welfare coming with pedestrian zones, it is necessary what public realm and public space is. It is obvious that public realm contains all of the relationships with strangers on public spaces. In other words, the concept of pedestrian zone should be thought in the context of public realm. Lofland (1989,19) mentions that, besides the private realm, which can be categorized by ties of intimacy among primary group members who located within households and personal network, and the parochial realm as characterized by a sense of communality among acquaintances and neighbours "including networks involving a community psychology" (Brill,1989,25), public realm can be defined as "non private sectors of urban areas in which individuals in co-presence tend to be personally unknown or only categorically known to one another" and therefore, it is "the world of streets" (Lofland,1989,19), or all public spaces including squares, pedestrian streets and even sidewalks.

According to Lofland (1989,19), with these definitions, it will be seen that cities differ from other sorts of settlement forms in two important respects which are "the diversity of social psychological spaces and the generation of a unique kind of social psychological space: public realm, in which interaction, sociality or sociability occurs". Understanding the content of public realm is important for socialization processes and the social welfare which comes with public spaces. According to Brill (1989,27-8), the urban social life on urban public places is formed by nine ingredients:

1. "Freedom to assemble and associate, which gives everyone access to interactions with and/or observations of strangers, in space that all may use. Everyone is free in their actions and interactions. These interactions are relatively independent of social control and surveillance by the primary groups of local community, and often, quite free of control by institution and state" (Brill,1989,27). This freedom confers anonymity, an ability to play with identity and to test alternative visions of the self. However, as he further states, there is a control mechanism on public spaces which is a social control from participation in one of the cities' collection of expressive subcultures.

2. "Social experience is expanded through finding satisfaction and pleasure in relationships with strangers, even though they seldom share our values, history and perspectives" (Brill,1989,28). These relationships usually cause an improvement in social well-being of individuals. He states additionally that this social experience can be achieved in different way, such as within expressive subcultures, with relationships, and in situations in which some information about strangers can be gained for a categorical knowing.

3. "Confronting the unknown is something that part of us enjoys, and it helps us grow. There can be excitement and pleasure even when no attempt is made (or none is successful) to know or to categorize the strangers" (Brill,1989,28). With this characteristics, the relationships with others mean a kind of entertainment, in most cases.

4. Moreover, according to Brill (1989,28), "social learning is accelerated through an awareness of the remarkable diversity of strangers and civility towards this diversity". This awareness enables individuals to form and test new opinions, attitudes and values, and thus, cause a social development of the self.

5. "Public opinion about matters of social significance can be expressed by individuals who freely assemble and associate in groups" (Brill,1989,28). Thus, public opinion has expanded to become a field for competition of interests of many groups and subgroups.

6. "Coming together in numbers great enough to be a public and a public with an opinion, confers upon the individual the power to count for something, and for something that counts" (Brill,1989,28). According to him, this characteristics of public life acts as a social leveler and a reminder of the roots of democracy because if each individual body counts somewhat equally, then the power and status inequities diminish.

7. As Brill (1989,28) mentions, individuals and groups can offer social presentations or productions and respond to those offered by others and can seek and find excitement and extra ordinariness in the productions and presentations created by strangers, and in those they create themselves.

8. "Commerce can be framed within a social mode of organization" (Brill,1989,28). He further states commerce becomes a form of public life when its exchanges are social ones, malleable, unique, and personal.

9. "Individuals can act as components of an information network, facilitating the exchange of news and information, acting as components of a network, both receiving and transmitting, and often altering both the communication and the network" (Brill,1989,28).

It is obvious with the explanations about the content of urban social life that the basic component of urban social life depends on the relationships among people. A study, which aims to develop an alternative approach for evaluation of pedestrian zones according to social processes should include, therefore, a concentration of the formation characteristics of social processes, as well as their spatial linkages in urban environments.

CHAPTER 4

THE PROCESS OF URBAN SOCIAL LIFE

Cities are physical things. However, the essence of urbanness does not only mean buildings, land-use patterns or heterogeneous population aggregations, but also "a quality and diversity of people's lives" (Webber,1967,88). It has direct relations with the cultural and social developments of individuals and can be achieved by social exchange activities on urban open spaces. Each social exchange activity, spontaneously, includes interactions, and communication within themselves. For their social well-being and for "socialization", people interact and communicate to share and possess the information flowing through public channels.

These social processes attach "a sociogenic character" to cities and according to Lang (1994,19-20), this sociogenic character refers to "the interactions and relationships among people and, in broader context, the behavioral norms of a society and the artifacts created by it". For this reason, an assessment about urban space, in particular pedestrian zone, should include the concepts of both physical environment and sociogenic environments. According to Webber (1967,80), a clearer conception on urban realm can not be achieved only by dealing only with functional processes of urban communities like interaction, contacts, etc., or with static structural form phenomenon, but also a simultaneous deal with social process and spatial form at the same time which brings "the notion that is how people use urban environment" (Pressman,1987,40) with.

It is obvious that the use of a pedestrian zone, with respect to socialization of people, can not be framed only with passing through like traveling in a car with restricted interaction possibilities. It includes human activity, significant amount of diverse interactions and face-to-face communication.

4.1. THE DIMENSIONS OF SOCIALIZATION PROCESS

4.1.1. SOCIAL ACTIVITY

A healthy urban social life is the basic necessity of social well-being of people. This social life basically depends on social activities among people on public spaces, which are the significant milieu for its emergence and development.

According to Gehl (1987,11), there are three categories of pedestrian activities in urban public spaces which are necessary activities, optional activities and social activities.

As Gehl (1987,11) states, necessary activities are compulsory activities that they are not influenced so much from the physical conditions such as surface characteristics and other external conditions such as weather or climatic conditions. They take place under all conditions throughout the year as participants of necessary activities have no much choice. Going to school or work can be examples of necessary pedestrian outdoor activities. The formation and continuation of them is relatively independent of visual quality and physical configuration of urban open spaces.

"Optional activities" is another category of pedestrian activities. Gehl (1987,11-2) mentions that if the

conditions are suitable and if there is a wish to do, there will be participants of such activities and claims that the exterior physical conditions are important for these kind of activities to be emerged. An example for these kind of activities can be recreative activities, like taking a walk to get a breath of fresh air.

"Social activities are all activities that depend on the presence of others in urban public spaces" (Gehl,1987,14). They occur "spontaneously" on urban environment. He further states that they tend to better physical conditions because although they emerged from -and supported by- necessary and especially optional outdoor activities. Gehl (1987,14) calls these activities as resultant activities and points out that they develop in connection with the other activities.

Social activities emerged from social contacts and willing participation to pedestrian activities. "In urban public spaces, most of the social contacts are superficial and passive social contacts with unknown others" (Gehl,1987,15). Passive contacts are to see and hear each other, to meet, etc. According to Gehl (1987,17-32) they build also a form of social relations and are important because they are the starting points of other kinds of contacts and social activities. Although the physical organization does not have direct influences on the quality, content and intensity of social contacts, the design can effect the possibilities for passive contacts. The social exchange activities can only be achieved with social contacts.

Each exchange activity in public spaces, therefore, has a social dimension. The social dimension of exchange activities comes from that they, firstly, emerge with

contacts and interactions, and are "essential to much of what we think of as quality of life" (Greenberg,1994,11).

According to Greenberg (1994), in the evolutionary urban history, it is observable that the most primary utility of cities is related to that the cities are the accumulation areas of people and goods and materials and also the culture, ideas, beliefs, feelings and information. One of the reasons of their existence is for facilitation all kind of exchange activities. Thus, the media of exchange activities are not only the goods, money and services, but also feelings, ideas, knowledge and information, love, etc. People have been living in cities for the act of exchange, not only for commercial activities, but also social exchanges.

"With the exchange activities, informal learning, knowledge generation and the construction of the patterns of mutual responsibility take place" (Greenberg,1994,75). Therefore, they have causal relations with the improvement of social welfare of individuals.

In this context, urban public spaces gain importance because they are the primary milieu on which most of the exchange activities take place. There are two necessary variables for the social exchange activities, the first one is the space, the other is the willing participation.

Barker (1968,18) mentions that "every behaviour patterns and activities need space". For the act of exchange activities on urban environment, also, space become a basic necessity. However, beside its existence, space should serve proper conditions. According to Greenberg (1995,76), the act of voluntary social exchange depends on an encounter between flesh-and-blood humanbeings and some feature of his/her world in which physical proximity is

necessary for "both predetermined and potential exchange activities" (Greenberg,1994,159-162).

The concept of physical proximity is related with the distances that people use in their everyday lives. As all of human activities, for different kind of face-to-face exchange activities, different categories of proximity are needed. According to Hall (1969,111-30), people choose a particular distance depending on how they feel toward the other person at a given time, the context of conservation, and their personal goals. These distance zones can be categorized in four groups: intimate distance, personal distance, social distance, and the public distance.

For a peaceful and voluntary exchange activities, a willing participation is another necessity of the exchange. If people are not willing to be part in a exchange activity, there will not be any exchange. For it, the actors of exchange should feel that the medium of exchange is valuable for possession.

The act of social exchange can be achieved only with the existence of these two variables on a particular space. Each kind of exchange activity on urban space includes interactions within themselves, which are the direct result of participation. Therefore, interaction has also a key significance in the process of social development of individuals.

4.1.2. INTERACTION

Webber (1967) utilizes the concept of interaction in two different perspective. The first perspective examines the human interactions in particular communities which establish the place communities. In the second perspective, Webber (1967) categorize the interactions in a global

basis. He further claims that these interactions depending on transportation and communication technologies can emerge "over the wide scattered places over the face of earth" and build nonplace communities.

Interactions on pedestrian zones are included in the first perspective and important for the process of socialization.

Social interactions with other people can be categorized according to "the intensity of contacts included in them" (Gehl,1987,17). From low intensity contacts to high ones, there are five categories. Passive contacts, chance contacts, acquaintances, friends and close friendships.

The contacts on public spaces are primarily the "low intensity contacts" (Gehl,1987,17). He further states that according to other forms of contacts, these contacts appear unimportant, but they are significant both as independent contacts and prerequisites for other more complex contacts. With the loss of these passive contacts, the varied transitional forms between being alone and being together have disappeared and spontaneous evolution of social events has been maltreated.

These kind of low intensity contacts give people chance to get information about social life. According to Greenberg (1995,76), compared with other kinds of communication facilities such as mass media, people can learn about more common, important details with participation. In order to function in a social context, people need to get and renew these detailed information about surrounding social environment.

These interactions are, therefore, "dynamic in action". This dynamic feature forms functional social processes and is traced through linkages, or "dependency ties" according

to Webber (1967). With their complex structure, they are relating people to each other, in broader sense, to the urban environment. The formation of these linkages on pedestrian environments depend on the movement of pedestrians, or in general, the experiences of pedestrians.

Being pedestrian, as a basic transportation unit, is different than all of the other transportation. Pedestrians walk on space for moving and changing their spatial positions. Walking is the slowest way of moving, but, at the same time, it means "ease perception, and therefore interaction possibilities of the environment and the people on it" (Suher,1992,247). These characteristics make pedestrian environments "a coherent and lively arena for social peregrination, challenge and engagement" (Corfield,1990,133).

"Social peregrination" means a trip in a socially meaningful sense with experiences. Pedestrian environments should not be perceived only as the place of personal mobility with a reduced understanding. They are "the arteries of public communication" (Corfield,1990,133). Corfield (1990) points out that universality of pedestrian spaces conferred a continuing diversity as well as personal mobility. Therefore, walking should not been understood according to his further explanations, "as only a utilitarian necessity, but also an agreeable form of informal entertainment in its own right". This character makes movements of pedestrians a entertaining activity that every pedestrians want to take part in either as actors or more commonly as viewers. Walking, in this sense, is an urban entertainment. At the same time, with walking a search for "adventure which can heighten the challenge of social identification" (Corfield,1990,132) and "informal learning and teaching processes offering to understand the city and the self" (Gehl,1987,23) can be achieved. These

processes are valid not only for people living permanently on those cities, but also newcomers, especially" (Greenberg,1995,76). These features make interaction the inseparable part of being pedestrian.

Actual being on public space can also be understood as a challenge, according to Corfield (1990,146) because it is usually impossible to know what will be exactly on public spaces. There may happen different activities presented by different social groups. As it is well-known that in democratic communities, public spaces are open to all social groups. These social groups can try to reflect themselves on public spaces. This reflection may sometimes cause a domination on public spaces, or on part of them, with "an informal street specialization assisting the process of social recognition" and thus, "a process of mutual identification and negotiation" (Corfield,1990,148). With testing and judging himself/herself by this process, actual being on space become a challenge.

Engagement is another type of pedestrian experience. Corfield (1990,155) states that "by walking on city, pedestrian enjoyed at once the pleasure, puzzle, and the necessity of scrutinizing each other discreetly". With scrutinizing and observing the others, people are able to have a social categorization about others and can participate their activities on public spaces. According to Corfield (1990,159), almost all activities -ordinary and daily activities, beside the "processions, games, festivities and protests"- on public spaces may have participants. These participants can be active or passive. However, whether they are active or not, they may obey formal and informal rules of the engagements by these participation. However, identification of these rules are difficult according to Brill (1989,27) because engagements in public life is now a matter of choice, where once it was

an obligation to all citizens". Thus, for understanding these rules, people should interact socially with others.

It is obvious with these explanations, with social character of pedestrian experiences, people have an important possibility to learn the city and the city social life. Interactions are the natural part of pedestrian activities. They can be a source of "social inspiration", according to Gehl (1987,23). They provide ideas and inspiration for action. Inspiration is possible with other experiences and seeing others in action. They also help "stimulation". Gehl (1987,23) mentions that experiencing other people represent attractive opportunities for stimulation and it offers a wealth of sensual variation because the number of new situations and new stimuli is limitless. Interaction with people is always stimulating because they are "rich in experience" (Gehl,1987.135).

In the essence of all kind of human interactions, there is face-to-face human communication. With this kind of communication, more information about the city and the social life can be gained which are important for social well-development of the self.

4.1.3. THE COMMUNICATION PROCESS

Communication represents a cooperative attempt on the part of a sender and receiver to expand the realm of ideas, impressions and experiences they hold in common, according to Meier (1962,8). It is, in general, an organizing and manipulative activity.

In fact, the word communication itself derives from the Latin equivalent of common (communis). For this reason, it is implied that something is already held in common and both the receiver and the sender feel that it is valuable

to add to their mutual understanding, in short, exchange of messages, which built the reason of interaction with others.

According to Warriner (1970,98), this relationship among people is the basic social process that makes all other social phenomena possible. Each interaction on urban space should be understood as an effort to communication, the product of which is the social order.

Meier (1962,1) claims that it is no overstatement to assert that the people in urban areas are preoccupied with communications. Each person in urban environment is continuously bombarded by messages both from other persons and the physical environment, and he/she, in turn, must spend time emitting the message of his own. Thus, communication within the space should not be understood only communication with other people, it includes also visual communication within the urban environment. According to Vernon (1972,336), learning to interact with others, in fact requires that one learn how to take space into account.

Adler and Rodman (1985,5) mention that with these characteristics, communication has a central role in people's lives. People are surrounded by others, trying to understand them and hoping to be understood. People spend most of their times for communicating because it is the base for satisfaction of human needs.

4.1.3.1. THE FUNCTION OF COMMUNICATION

Each communication attempt has a purpose to be fulfilled. According to Adler and Rodman (1985,5-10), the purpose of communication can be classified in four categories. These are physical needs, ego needs, social needs and practical

needs. Although all of these categories are necessary for well-being of people, the social needs are more crucial for a study on pedestrian zones. In pedestrian zones, because most of the communications are established with strangers in public contexts, identification of the purpose of communication is particularly difficult. However, in general, it can be said that one of the most important purpose of pedestrian communication is learning the city and the city life processes to enhance people's socialization processes and thus, integration of social life.

Communication among people helps not only to define who we are, but also it is the way to relate socially with others. According to (Adler and Rodman,1985,5-10), there are three types of social needs which can be fulfilled by communication. The first one is the inclusion, the need to feel a sense of belonging to some personal relationships. The second type of social need is the desire for control, to feel some sense of power over surrounding environment. And the last one is affection, a desire to care others and know that they care for us.

4.1.3.2. THE VARIABLES OF COMMUNICATION

The general definition of communication is an information flow from sender to receiver via messages which determines the basic variables of communication process. These are the sender, the receiver and the messages.

In cities, everyone is a sender. In most cases, this is a professionalized role, but on public spaces, these roles are not dominant. In public spaces, the content messages can change according to social roles and status, age, beliefs, ethnicity, etc. According to time, the context of interaction, some of these features of senders become

dominant which effects the content of messages. People send -consciously or unconsciously- send messages. The conscious communication emerges with verbal communication. The unconscious messages, however, are related with the appearances of sender such as the clothes, the make-ups which generate messages about the senders. The physical environment can also be defined as the sender the messages of which can only be taken by visual channels.

The individual senders may cease playing his role merely by stopping to look around or listen, than he becomes a receiver. Receiver is also a basic variable of a communication process. He/she evaluates the values of messages and according to the result, he/she may continue the communication.

The message is another basic variable of communication. According to Meier (1962,8), the message itself may be chosen from a very large storehouse of information available to the sender. The messages can be taken into hand in two main groups for a study on pedestrians and pedestrian zones. A pedestrian, as a receiver on pedestrian zones, takes mainly verbal messages coming from individual sender and visual messages from urban environment.

Meier (1962,9) states that there are four categories of communication channels which can be used by the communicators for transmitting their messages. The principal channel is the printed matter and typescripts. These are the most used channel for the communication of information in the urban societies. "The spoken language is the most common and second in importance" (Meier,1962,9). This channel is important especially in the actual interactions with others. The postures and gestures can be included in this category. Another channel is the visual images, as patterns, forms, views, pictures, etc. Finally,

touch, odor and taste form another category for transmission of information.

However, in a communication process, beside these basic variables, there are some additional requirements. These are the attention on the part of receiver, a common language, and time for the process to take place.

Attention on the part of the receiver is important for communication processes because "it involves the selection of stimuli" (Meier,1962,9). Learning to subordination of the competing stimuli and concentration upon those that are the part of the message itself affect the attention variable of a communication process. It effects the continuation of the communication process with the rises and falls of the attention on the part of the receiver because experienced senders usually change the messages according to this situation.

A common language is also crucial for the process of communication, especially by the face-to-face communication among people. There should be an agreement on the language by receiver and sender. "The language that must be shared by sender and receiver is based upon applying symbols to objects and operations and an ordering of these symbols when presented according to commonly accepted rules" (Meier,1962,9-10). The language between space as a sender and people as receiver is much more complex. According to Vernon (1972,336), different individuals and groups in a society may experience space differently. However, if the society is to function as an entity, sufficient coordination must be developed. The concept of space should be thought that it forms the basis of physical flow of people and material, and also information as interaction progress in the society.

Time is another aspect of social communication. Each communication needs time for continuation. Each part of the communication process -the flow of messages from sender to receiver, the evaluation of the messages by receiver and the response- requires time to be occurred. A lack of time by any part of communication process such as by encoding or decoding messages usually results in a fail of a successful communication.

4.1.3.3. THE LANGUAGE OF MESSAGES

As Meier (1962,2) mentions, a communication system is a sequence of states of an interacting population, each state being a function of preceding states. However, it should not be forgotten that the population need not to be made up of people. A communication system could have as its population either a body of communicators or a series of messages. These messages can be verbal and visual messages.

Verbal messages, which are included in the primary language group, are the ones organizing the relationships among people. In an urban public life, almost all the activities start from the interactions of strangers. People should, therefore, understand the others and the social groups by face-to-face interactions and communication. For these kind of communication, a common and shared language is needed.

Visual messages determine the secondary language group for an assessment about the pedestrian zones. They depend on the interactions between man and man-made environment. People in cities are surrounded by visual communication and establish their relationship to physical environment first of all visually. With their eyes, they take the information from space to orient themselves within the physical environment. According to Hosken (1972,26), the urban environment is often transformed by lots of signs and

visual symbols. These visual messages in every form, shape, size, and color try to intrude in people's live and influence their decisions.

The parts of physical environment, the buildings, the streets, etc. are visual expressions of people's way of life. The whole man-made environment carries the visual messages of the society and the values of society. These messages give people a new understanding of the realities of the environment, beside the enjoyment. The physical environment, in this sense, become a means of education. The language of these messages are scale and space; form and movement; and order and unity.

The communication between man and man-made environment, however, has not been fully settled. The most significant reason of this is that the evaluation of the messages by receiver is effected by a lot of different aspects because of the perception of visual environment. Seeing and perceiving the urban environment are the most personal experiences and influenced by all that people have learned and seen throughout their lives. However, according to Hosken (1972,3), to perceive and understand the visual messages depends on people's ability to see and evaluate the qualities of cities. To learn to take these visual messages is not only enrich and enhance our lives, but also give people a basis for judging the success of the urban environment.

4.2. THE SPATIAL DIMENSION OF SOCIAL PROCESSES

4.2.1. SPATIAL COUNTERPART OF PROCESSES

Interaction and communication among people, which are important for socialization of people, are not independent concepts from the space. By formation and continuation,

they present strong relations with the physical space because they are "spatially structured processes" as Webber (1967,80) claims.

According to Chapin (1965,76-7), a clear conception on these spatially structured processes can be achieved only by taking both the social process and spatial configuration into consideration at the same time and, therefore, should include the analysis of causal relationships between two pairs of concepts. The first pair is to understand the human behaviour and includes the place related patterns of interaction (activities) and the patterns of interaction among different place activities (communication). The second pair focuses on physical structure and form including space adapted for activity use and channels for movements and other forms of communication.

The cross-examination model developed by Webber is useful for evaluation of pedestrian zones in this respect because it helps to describe the relationships between interaction, activity and space. It also facilitates to define a success criterion for physical structure of pedestrian zones from a different point of view. Pedestrian zones, which provides suitable conditions for social processes, from low intensity contacts to complex human activities, could be classified as successful pedestrian zones because the success of pedestrian zones, especially for users, is not only the visual qualities, but suitable physical configurations in which adequate amount of pedestrian activities that attract other people are distributed, as Gehl (1987, Whyte (1980) and Chidister (1986) also state. It should not be forgotten that a deserted pedestrian zone can never be defined as successful pedestrian zone.

The evaluation of spatial structure of pedestrian zone, in this sense, should consider three basic steps, according to Webber (1967,102).

- Human interactions
- Physical plant
- Activity locations

The **first** one focuses on the spatial patterns of human communication. Webber (1967,96) claims that "the first component is the flow of information, money, people, and goods through which interaction take place.

Although large volume of interactions occurs through mechanical and electronical communication channels, there are also interactions which require that communicators should be in the same place. The spatial patterns of human interactions, therefore, include physical movements of people through physical channels.

In pedestrian zones, pedestrians have various activities. By these activities, they are walking, standing, sitting; promenading and experiencing the social events and the physical environment. It is not easily possible to separate these activities from one another. They have a complex and interconnected structure which is directly related with the free movement of pedestrians.

The crucial determinant of physical movements of pedestrians, and, therefore, the spatial patterns of human interaction is related to the physical organizations with respect to satisfying the safety needs for pedestrians. The physical configuration that create safety for people within urban environments influences the directions, locations and densities of human flows.

Gehl (1987,173) claims that "the safety of a place is partly contingent on protection from danger and physical harm, primarily protection from insecurity due to the fear of vehicular traffic, unsuitable weather conditions and criminality".

Protection from vehicle is mainly the subject of segregation of vehicle and pedestrian traffic. Segregation, as the basic tool used by applications of pedestrianization, can be defined, in fact, as an attempt for creation safe environments for pedestrians.

There are two major type of segregation: horizontal segregation and multilevel vertical segregation. (Lang,1994,242; Erpi,1980,83-4)

In horizontal segregation, the paths of movement of vehicles, bicycles and pedestrians are separated in the horizontal plane. However, there may be conflict problems where these paths cross each other. In this understanding, the solution can be "reducing the number of crossing points" (Lang,1994,242), or alternatively, grade segregated crossings (Erpi,1980,84-5).

However, in grade segregated crossings solutions, pedestrian are reluctant to go up or down steps or a ramp to cross a street. Pedestrian rather cross at grade level unless it is much easier to do so in a grade separated crossing according to Lang (1994,242). He (Lang,1994,242) mentions that "one of the side effects has simply been that grade segregated pedestrian ways result in less interesting places in which to be" which may maltreat the connected structure of spatial patterns of human communication.

By applications of horizontal segregation, the first thing that should be considered is the existing and expected density of human activity.

The urban streets should not be closed to vehicles unless they have substantial pedestrian traffic flows or have facilities that can attract or generate such activities or can cater to people, such as children with low competence. Nor should they be pedestrianized if they are too wide to act as a seam tying the sides together into territory (Lang,1994,242).

According to Lang (1994,242) it should no be forgotten that streets are often seams joining the two sides in a territorial unit and for such a territory to be formed those streets should have low vehicular traffic flows. This problem is usually valid for low-dense residential areas. In central business districts, as the most dense areas of cities, there are always adequate amount of people. For this reason, horizontal segregation of vehicles and pedestrians usually results with successes.

Lang (1994,242) mentions that multilevel vertical segregation of movement routes is the characteristics of rationalist design both in concept and practice and he (Lang,1994,242) adds:

It has been successful as a mechanism to achieve an overall environmental safety than it has been as a mechanism to speed up traffic flow -until the capacity of the roads is reached and become clogged.

In multilevel vertical segregation, people are distributed in different levels. It reduces the possibility of ease movement. Participation to human activities and also interaction become physically and psychologically difficult. For these reason, they could not be classified as good solutions for social processes.

"Creating a pleasant place is a question of protection from unpleasant weather as well" (Gehl,1987,175). There are different undesirable weather conditions varying according to locations. Each geographic region has its own climatic condition, effecting the design of public places. For instance, protection from sun and heats plays an important part in designing the pedestrian streets in southern Europe during the summer while the problems of northern Europe, Canada and large parts America is quite different.

There are different solutions to provide protection from unpleasant weather conditions. Considering arcades and porticoes by space formation are the most common ones, especially for pedestrian zones. Additionally, landscaping can be used for providing protection against the unpleasant weather conditions.

Protection from unpleasant weather also influences the physical movement of pedestrian and therefore, spatial pattern of interaction. The places protected from unpleasant weather always collect people for their activities.

For the protection from crime by others, there are different proposals to safeting the environment. People prefer to see and be seen by others for their self-protection. The physical organizations of urban spaces should, therefore, consider lighting and soft edges. The protection from the insecurity due to the fear of criminality have been achieved in this way. These effort encourages people's presence on pedestrian zones. So, a "mutual protection" (Gehl,1987) which become valid for day and night can be provided.

The **second** component in Webber's model includes "the spatial form of communication and transportation channels

networks; of adapted spaces, including physical buildings; and of landscape and other physical objects" according to Webber (1967,97).

Spatial arrangements of all transportation channels network have strong influences especially by the formation of interactions. The importance of transportation channels network comes from that they are related to the accessibility of urban environments and affect the basic problematic of pedestrian zone, which is the "determination problem". It is obvious that interaction and face-to-face communication depend on the presence of people for which accessibility determined by the spatial arrangements of transportation channels network is important.

The channels of face-to-face communications are different than the others. These channels are the ones where communicators can occupy a common space. According to Webber (1967,99), the channels for face-to-face communications comprise meeting places. They can be offices, restaurant, living rooms or these channels can be buildings or group of buildings, as well as the street on which they face.

Webber (1967,99) mentions that the other major part of the physical form comprises the adapted spaces and the buildings. According to Lynch (1961), adapted spaces can be identified as the voids between channels that "have in some way been modified to facilitate localized activities, whether by enclosure, improvement of the floors, provision of fixed equipment, etc. These effect the presence and existence of individuals, and therefore, the interaction and communication processes, positively. Buildings are also the concern of this component. Beside their styles, sizes and heights; the rules by spacing between them are

significant for facilitation human activities, interaction and communication.

According to Webber(1967,99), the basic attribute of this component is the degree of conformity of urban space to the functional requirements of activities. It comes with the suitability of space to the presence and movement of pedestrians. This suitability positively effects pedestrian activities on urban space because for formation and continuation of activities, pedestrians should be comfortable within the space. Therefore , the evaluation of adapted space in pedestrian zone case should consider the conformity of space for walking, standing and sitting.

Walking is the first and foremost type of transportation (Gehl,1987,135). The first thing that walking needs is the space. Gehl (1987,135-47) points out that the qualities of these spaces should be determined according to both external conditions such as weather, climate, surface conditions and the content of walking which depends on the aim and types of pedestrian activity.

The qualities that spaces should serve for walking vary from person to person, but the basic qualities come with that people can walk reasonably "freely without being disturbed, and pushed, and without having to maneuver too much" (Gehl,1987,135). The first two aspects are directly related with the human level of tolerance and take the theoretical framework from the concept of personal space. However, the last one emerges from the fact that walking is tiring and people can walk only in limited time and distance. Because having to much maneuver lengthen the distances, people do not want to walk in such a way.

The surface material should be comfortable and flat enough to walk on. The characteristics of it should not create

danger for walking, like randomly located landscape elements, so that pedestrian direct their interests to the environment and other human activities. This is important than the color, or type of surface material.

Another category of pedestrian movement is standing on pedestrian zones. They may have a very functional nature according to Gehl (1987,149), such as stopping for a red light or stopping to look at something. It is commonly accepted that standing is related to where you can look a lot of things in protected conditions such as along the facades or in transitional zones between different physical spaces. Standing along a facade refer to protected conditions and transition zones means more observation from two or more different spaces. As Gehl (1987,151) referred to Derk de Jonge (1968), this is related to the "edge effect". Jonge (1968) claims that because comparable observation can be made in urban environment where the preferred stopping zones are found along the borders of the spaces or at the edges of spaces within the space. The placement at the edge or close to facades helps individuals or groups to keep distance from others. Christopher Alexander (1977) also points out the importance of the experiences regarding the edge effect and edge zones in public spaces and adds: "If the edge fails, then the space never become lively". Another desired condition for standing is the opportunity to be partly hidden in half shade while at the same time having a fine view of the space, according to Gehl (1987,151). It provides suitable conditions for interaction and activities. Landscape provides suitable solutions for this desired condition. All of these presents that the spaces can be desolated and empty if there are no standing opportunities in details because on such spaces people are usually directed to locomotion which reduces the social contacts.

Gehl (1987,159) claims that the existence of good sitting opportunities paves the way for the numerous activities that are prime attractions in public spaces. Eating, reading, sleeping, watching people and talking to others are some of examples of these activities.

The sitting opportunities can be mentioned as one of the most important factor in evaluating the quality of public environments because it directly shows "the demand of individuals of the public space use" (Gehl,1987,157). They effect the people's presence on public spaces positively. The act of sitting makes several important general demand on the particular situations, the climate and weather conditions and the space with its physical characteristics. Similar to desired conditions for standing opportunities, the edge effect and being partly hidden in half shade (Gehl,1987,151-7) have been effecting people's choices of sitting places. According to Cullen (1998,23), shade, shelter, amenity and convenience are the usual causes effecting the sitting choices. Additionally to these, the types and location of seats can be important. A pedestrian space should provide all kind of sitting opportunities, either primary seating elements like benches, etc. or secondary seating elements like stairs, low walls, even curbs etc.

According to walking and standing, sitting put a significant demand for interactions, and thus communication, with known and unknown people and provide much more suitable conditions for interactions and communications (Gehl,1987,157).

Seing and hearing should also be considered by evaluation of adapted spaces because they are prerequisites of pedestrian social activities.

The important dimension is the sociopedality of space in this respect that effect spatial patterns of human interaction. In order to take part in activities, it is important to see and to be seen. Therefore, spatial configuration should promote interactions and communication. To achieve a good quality of communication, physical space should promote visual and auditory contacts.

According to Gehl (1987,39), such promotions within the physical environment can help human activities tend to grow in number, duration and scope. Humprey Osmond introduces the concepts "sociopetal and sociofugal spaces" with an examination of the characteristics of physical space, promoting and inhibiting contacts and communications within space.

According to Gehl (1987,64), physical arrangements can promote or inhibit visual and auditory contacts in at least five different ways. The first one is that the use of vertical elements usually prevents formation of visual contacts on public spaces unless they are transparent. The vertical elements inhibiting the contacts can be walls, as well as dense landscaping. Proximity is also important to form social contacts. In large squares, or on wide roads, people have difficulties to see each other which reduces the number of potential interactions. Because perception possibilities increase with low speeds, the physical arrangement should not allow high speeds. Dispersal in levels inhibits contacts, thus, the physical arrangements should be taken into consideration in the same level. Face-to-face orientation is also important.

The spatial form of landscape and other physical objects builds the other part. They usually enhance the visual qualities of urban environment. According to Webber (1967,101),

...a physical form that closely conforms to the processual aspects of the social system it would accommodate is likely to be a thing of beauty; for beauty is an inherent quality of a carefully conceived system.

Each urban design has a beauty understanding which is difficult to evaluate. The difficulty comes from the complex structure of the criteria of beauty which may be different for each person. However, it is obvious that the beauty of urban environment usually results with adequate use of space because people prefer to be in such spaces.

The **third** component is the spatial configuration in which various types of activities are distributed. The configuration of activity locations within any given urban field is largely a function of the interaction patterns among the participants. The basic variables of this function is the "use of space and land-using activities". According to Webber (1986,101), these activities may change their characters within time. The constraint of physical environment against these changes exist in flexible and adaptable character of space. Space should response and enhance each new activity on it.

Webber (1967,103) develops a six-way cross-classification system for describing urban spatial structure with using these three components (Fig.4.1).

Interactions, whether they build place communities or nonplace communities in a global basis, have the same characters in essence. Each interaction has an amplitude, focality, subfocality, intensity, affinity and insularity according to Webber (1967,103). These features of interactions relates with spatial and activity components in each scale, from metropolitan region to three-dimensional urban space.

INTERACTION COMPONENT	PHYSICAL COMPONENT	ACTIVITY COMPONENT
amplitude	capacity	volume
focality	nucleation	centralization
subfocality	subnucleation	subcentralizaiton
intensity	density	concentration
affinity	clustering	localization
insularity	separation	segregation

Fig. 4.1. Adapted from Webber (1967,103)

1. Amplitude-Capacity-Volume

The first group is related with the size of phenomenon. Each interaction has an amplitude. According to Webber (1967,103), the amplitude of interaction can be expressed as the number of people by interactions via persons, or as "hubit" (human-hours times average "bits of information received) by interactions via messages. The reflection of this amplitude in physical component is the capacity; and in activity component, the volume.

Although it is easily possible to determine the amplitude of interaction in different urban planning scales, by the evaluation of pedestrian zones, there are difficulties to determine it exactly, both as the number of people by interactions via persons, and as "hubits" by interactions via messages. Determination of the number of people using pedestrian zones is difficult because the number of people can easily change in short time periods. There are continuous flow of people to and from pedestrian zones. "Hubits", human-hours times average bits of information received, seem much more suitable for a study in which

pedestrian zones are considered as communication environments. However, people are continuously bombarded by messages from physical environment and from other people. The interactions rooted from this communication changes the amplitude of interaction from person to person and makes the determination of "hubit" difficult. For this reason, the evaluation of amplitude of interaction, capacity of space and volume of activity depends on global observations in this study about pedestrian zones.

2. Focality-Nucleation-Centralization

According to Webber (1967,103), this group refers to the degrees to which the phenomenon piles up in major concentric forms around a single point. This degree, then, becomes the basis for measuring the degree of focality within the urban space. Both Webber (1967,104) and Chapin (1965,80) mention that with the existence of single major focus on urban space, the degree of focality on any kind of interaction is "its inclination to cumulate around a point of greatest aggregate cumulation". The nucleation of spaces, which refers to the degree to which all types of buildings and adapted spaces are agglomerated around a single point in space, is the reflection of focality in spatial component. The existence of physical nucleus incline the adapted spaces to occur in very close environment of nucleus. According to Webber (1967,105), centrality of any specific type of activity, then, is the propensity of that type of activity to locate at the point of maximum activity.

In metropolitan scale, the physical reflections of these phenomena embodied with physical image of central business districts. In a pedestrian zone framework, however, the nucleus can be defined as a plaza, or a setting in which people can collect and activities are centralized. The

spatial reflections of focality of interactions should be considered in this context.

3. Subfocality-Subnucleation-Subcentralization

According to Webber (1967,105), this group refers to the propensities of interaction, physical artifacts, and activities to pile up at points of lesser concentrations. The subcenters can be occupied by certain types of activities. There is no need for distinction of the subfocalities according to the predominant activities, however, the existence of physical nucleus in which the propensity of these activities to pile up in lesser amount than the main activity centers.

4. Intensity-Density-Concentration

Webber (1967,106) mentions that intensity refers to the amplitude of information generated by contacts between people at the occupied site with others at varying distances away. Concentration and density are on-site qualities and refer to the capacities of space and to volumes of activities, respectively, per unit of space they occupy.

The most significant group for an evaluation of spatial configuration of pedestrian zones according to the social processes is the intensity-density-concentration category because the basic assumption and also expectation by creation of pedestrian zones is to achieve an increase the human activities in number, duration and scope, and a high amplitude of interaction in the name of social welfare of individuals.

The intensity of interactions on pedestrian zones can be achieved only by assembling human activities and people

together. This makes individual activities stimulating one another and possible, therefore, to have a concentration of human activities on the physical environment.

Gehl (1987,83) mentions that assembling the elements of physical environment results in assembling of people, and therefore causes a concentration of activities. He further states that the concepts floor area/site ratio and building densities say nothing conclusive about whether human activities are adequately concentrated or not.

There are 4 crucial points by assembling of spaces with the physical arrangements.

- orientation of buildings and entrances
- the number of entrances
- the relation between space and buildings - the design of adjacent areas
- the width of streets

The placement of the buildings and the direct orientation of the entrances in relation with pedestrian environments usually, result in an increase in human activities, with respect to number and scope.

Beside the orientation of entrances, the number of them is also important. According to Gehl (1987,95), big building with long facades, few entrances means a dispersal of events and street life is drastically reduced when small, active units are superseded by large units. The principle, in contrast, should be narrow units with many doors. This helps that the system of public spaces become as compact as possible and so that the distances for pedestrians traffic and sensory experiences are as short as possible, which enhances assembling human activities and interactions.

The design of facades and adjacent areas also provides possibilities for influencing the concentration of human activities and the intensity of interaction for pedestrians who pass by, according to Gehl (1987,95). The concentration of activities depends on active and closely spaced exchange zones between street and facade and the short distances between entrances. Such spatial arrangements contribute to activating public environment. The level differentiation is usually the subject of the design of adjacent areas. However, according to Whyte (1980), "sight lines are important. If people do not see a space, they will not use it". Levels in pedestrian environment prevent seeing the whole of environment, and results parts of environment become dead spaces.

The width of pedestrian zones should also be evaluated in this respect. The conformity of the width of a pedestrian zone is related with the number of pedestrians using the space. Therefore, there can not be exact measurements of width because of the changing number of pedestrians. However, according to Gehl (1987,93), with wide pedestrian streets, "the possibility for people walking through experiencing simultaneously what is going on both sides is more or less lost". This reduces the number of people using pedestrian streets because the perceptual satisfaction of man on space is reduced. The width of pedestrian street is also related to the climatic conditions. According to Gehl (1987,94), in southern Europe, narrow pedestrian streets are reasonable and comfortable because with them, a shade and subdued light can be achieved, while in north both light and sun are "high valued qualities".

5. Affinity-Clustering-Localization

This group describe the relative togetherness of like interactions, spaces and activities.

The physical reflection of the affinity of interaction and localization of activities is a clustering of space. According to Gehl (1987,99), it is important for pedestrians to move easily among activities. Therefore, clustering should not reduce the possibilities of ease movements because in such cases participation to activities becomes physically and psychologically difficult.

6. Insularity-Separation-Segregation

This group, on the other hand, describe the relative degree of mixture among unlike types of interactions, spaces and activities.

For the evaluation of this group in pedestrian zones, the concept of borders gains importance. It is obvious that the interactions among people are not only occurring within the public realm, but also between public and private realm. The borders between public and private realm effect the concentrations of human activities on pedestrian zones. Sharply demarcated borders, like walls and fences, make it difficult to move into public life. Flexible boundaries in form of transitional zones make the interactions between them much easier.

By the assessment on pedestrian zone in an urban design framework, there is a significant need to understand spatial components in a comprehensive way.

Beside this descriptive study of Webber, there are different theories on urban form with respect to human activities and interaction. One of the significant studies was developed by Lynch and Rodwin (1958). With these studies Lynch and Rodwin try to understand the relations between urban space and human activities, and also

interaction. According to Chapin (1965,81), they view the city as a collection of "adapted spaces" for accommodation of human activities and "flow systems" for handling flows of people and goods.

In their conceptual framework, Lynch and Rodwin (1958) develop a system for analyzing urban form. They propose evaluating urban form by six analytical categories:

- Element Types
- Quantity
- Density
- Grain
- Focal Organization
- Generalized Spatial Organization

With these categories, they aim to understand the quality of urban space in the interaction between urban space and interaction. They focus on urban form, however, they also try to understand the physical implications of human interaction.

The first one -element types- is a category for differentiating qualitatively between basic types of spaces and flow systems. Quantity, as the second category, is interested in amounts -a measure of the size of adapted spaces and flow systems-. Density is related with compaction of people, facilities and vehicles per unit of space and flow channels. Grain, as the fourth category, indicates how various elements of urban form are differentiated and separated. According to Lynch and Rodwin (1958) adapted spaces and flow systems may be fine grained or coarse grained according to the compaction and separation in their internal components such as buildings, streets, etc. and how sharp and blurred these form elements are at the edges where transition occurs from one element

to another. Focal organization is concerned with the spatial disposition and interrelations among key points on the city, or within the part of the city. They can be density peaks, dominant building types and major breaks between forms of transportation. Generalized spatial distribution is the patterned organization of space.

However, this study tries to evaluate the spatial structure of pedestrian zones with respect to the features of interactions and activities by observations within the urban environment. The theories on urban forms guides this study, however, they are not spontaneously repeated.



CHAPTER 5

CASE STUDY

5.1. CASE STUDY: YÜKSEL PEDESTRIAN ZONE

Yüksel Pedestrian Zone is located in Kızılay district, in Ankara. Kızılay, which was proposed as the administrative center in Jansen's plan at the end of 1920's (Tankut,1993,67), began to transform to a new nucleus in Ankara's commercial structure with 1950's.

This transformation became "a reality of new center" (Göksu,1994,268). The developments in South Ankara as dense residential areas speeded up the commercial transformation processes and, as a result, the second commercial center which began to compete with its new and modern functions was introduced in Kızılay district.

This situation had resulted in a shift of social activities from Ulus -the traditional center- to Kızılay. In this period, the sidewalks of Atatürk Boulevard had taken the role of "Heykel", and became main place of socialization of people in Ankara (Soysal,1996). Additionally, Güvenpark and newly-emerged pastry shops around Kızılay were other centers of socialization.

The users of these sidewalks were from different socio-economic classes. Beside the middle and high income groups living in near surrounding, the low income groups from squatter areas were also present on these sidewalks, interacting with others. There was a significant user

diversity and they had been presenting the their own social and cultural values on these sidewalks.

People were promenading on these sidewalks, or walking for recreative purposes, and had chance contacts with other people and interacted. The number, duration and scope of social activities were very high on these sidewalks, in this period.

The commercial prestige of Kızılay supported these social and economic developments, however, according to Göksu (1994,268), the physical opportunities in Kızılay could not resist to the pressure which comes with these developments.

At the end of 1970's, the high rise buildings dominating the urban environment and the increase in the number of car-ownership had negatively effected the pedestrian environments in Kızılay. Parallel to these processes, the pedestrian densities were increased. However, for the ease movements of vehicles, the sidewalks were narrowed and the bus stops were randomly located along sidewalks, which forced pedestrians to move to pedestrian zones around Hürriyet Square. Yüksel Pedestrian Zone became one of the important pedestrian zones in Kızılay. The others are İzmir and Sakarya Pedestrian zones.

Yüksel Yaya Bölgesi contains three streets which are Yüksel Street, Karanfil Street and Konur Street. Part of Selanik street is also included in Yüksel Yaya Bölgesi.(Fig.5.1-5.2-5.3-5.4)

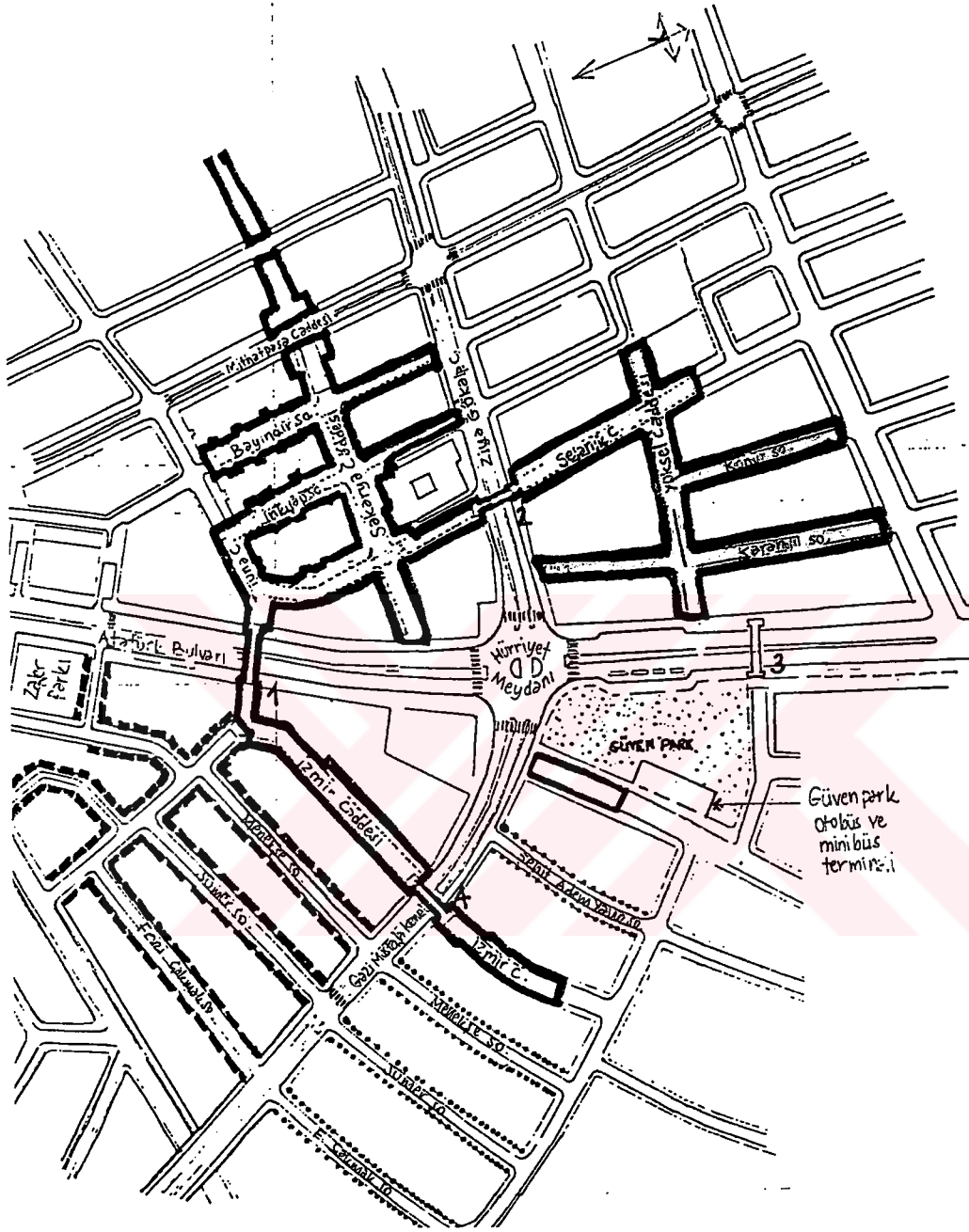


Fig. 5.1. Pedestrianized Areas in Kızılay District and Yüksel Pedestrian Zone



Fig. 5.2. A General View from Yüksel Street Personal Archive



Fig. 5.3. A General View from Karanfil Street Personal Archive



Fig. 5.4. A General View from Konur Street Personal Archive

1. Spatial Patterns of Human Interaction in Yüksel Pedestrian Zone

Yüksel Pedestrian Zone has always include adequate amount of pedestrian activity because of the location between dense commercial and residential areas along Tunus and Tunalı Hilmi Streets in southern part of Kızılay; and one of the main transportation node of Ankara at Hürriyet Square.

It is easily observable that the concentration of human activities are increasing in number from day-to-day, especially after 1990's.

This increase has caused the total exclusion of automobiles in day times, except for emergency moments, from Yüksel

Pedestrian Zone, which was, firstly, functioning like a Woonerf, in the beginning of 1990's. Today, Yüksel Pedestrian Zone can be defined exactly as a pedestrian zone, having the principle of horizontal segregation of vehicle and pedestrians although the physical environment still reflects the woonerf characteristics.

The general problems arisen with horizontal segregation are valid for Yüksel case. The safety of pedestrians are provided with the pedestrian zone, however, there are difficulties by the connections with other pedestrian environments, especially at the connection points with Atatürk Boulevard and Ziya Gökalp Street. There are grade segregated crossing, both below and over grade level. People are reluctant to use these passages because of the physical effort needed. People tend to use grade level in order to cross over the street. At the intersections of Karanfil and Konur Streets with Meşrutiyet Street, there are grade level crossings on which passing is difficult for pedestrians because of dense vehicle traffic which is not controlled with signal lambs.

Significant amount of pedestrians are using Yüksel Pedestrian Zone only for locomotion. Especially at peak hours, almost all pedestrians are walking through it.

Because Karanfil Street is the shortest route between Hürriyet Square and dense commercial areas in southern direction of Yüksel Pedestrian Zone, pedestrians use this part almost only for locomotion although this street provides proper standing and secondary seating opportunities. Yüksel Street has also similar character. Konur Street has, on the other hand, much more static and stable character. There are more people who stand and sit in Konur Street.

In Yüksel Pedestrian Zone, there are no conscious physical arrangements to protect pedestrians from unpleasant weather conditions. However, the design of some buildings provides such a protection, and generate the formation of activities close to facades. Similarly, trees, as the landscape elements, effect the land-using behaviours of people with their shadows, especially in hot and sunny summer days. Because these land-using behaviours depend on the habits, such spaces are also used at other times and this phenomenon effects the spatial patterns of human interactions through the year.

Landscape elements providing such conditions are concentrated at Karanfil and Yüksel Streets. Therefore, concentration of activities of stable pedestrians and the intensity of interaction are usually emerged at these part of Yüksel Pedestrian Zone.

The central areas between buildings in Yüksel Pedestrian Zone are not adequately used for communicative purposes because standing people for communication are easily disturbed by people in locomotion. This phenomenon pushes the communicative activities to the facades. Although there are also human communication by locomotion, the amount of them are not much as the communication among standing and sitting people. Other agglomeration areas for communication in Yüksel Pedestrian Zone are usually at the intersection zones of people moving in different directions and their close surroundings.

2. Spatial Form of Adapted Spaces in Yüksel Pedestrian Zone

The physical arrangements of Yüksel Pedestrian Zone generally conform the physical movements of pedestrians.

Yüksel Pedestrian Zone in which large amounts of pedestrians are in locomotion provides suitable conditions for walking. Although there are lots of curbs and landscape elements put for restriction of vehicle movement, they do not create difficulties for pedestrian to walk, in general. However, in some part of Yüksel Pedestrian Zone, especially in Karanfil Street, the number of these landscape elements is too high. Most of them are randomly located on pavements, which cause to much maneuver by walking in peak times in which the number of people increased. At other times, however, these parts of pedestrian zone are not used by people for walking, but for standing and sitting.

As it is mentioned standing is related to where you can look a lot of things in protected conditions such as along the facades or in transitional zones between different physical spaces. People prefer to stand along a facade and transition zones because they mean more observation from two or more different spaces with keeping distance from others. From this point of view, standing opportunities are restricted in Yüksel Pedestrian Zone because of the spatial arrangements in front of the facades. These spaces are used by commercial activities like restaurants and cafes.

However, it should not be forgotten that the spaces for walking can also be used for standing. From this point of view, Yüksel Pedestrian Zone become successful with its landscape elements most of which are used people like sheltered and shaded niches to stand. People can stand in these areas without disturbed by walking people.

Primary seating elements are not sufficient in Yüksel Pedestrian Zone and not well distributed in space. There are two important area where there are primary seating elements (Fig.5.5). However, almost all Yüksel Pedestrian Zone is full with secondary seats like stairs, curbs, low

walls and landscape elements. Although most of which mainly located for restriction of vehicle movements, the result becomes suitable condition for people who are sitting.

Another sitting opportunity is provided by cafes and restaurants. Almost all of them have chairs and seats in front of the facade. There are also social activities formed in these spaces.

The spatial arrangement of Yüksel Pedestrian Zone is sociopedal for the interactions and communications. Although there are little level differentiations, these are not inhibiting the contacts and interactions. There are two area in Yüksel Pedestrian Zone with important level differentiation. Both of them are at the connections with Atatürk Boulevard and Ziya Gökalp Street. With their physical arrangements providing suitable conditions for standing and sitting, these areas are like subcenters of social activities and not inhibiting the continuity of interactions.

The physical dimensions of Yüksel Pedestrian Zone are also suitable for setting contacts. The areas of social exchange activities are proximal due to these dimensions of spaces.

All buildings generating human flows are located face-to-face and there are no vertical elements inhibiting visual and auditory contacts.

It can be said for Yüksel Pedestrian Zone that there are no negative conditions for setting contacts and interactions, from this point of view. The physical arrangement of space is suitable for promoting contacts.



Fig. 5.5. Primary Seating Elements in Yüksel Street Personal Archive

3. Spatial Configuration for Activities in Yüksel Pedestrian Zone

Although safety and conformity to physical movements are important for formation and continuation of interactions, the relations between interaction, space and activity make urban space adequately used and results in an increase in human activities, in number, duration and scope.

It is difficult to determine the exact the amplitude of interaction, the volume of activities, and therefore the capacity of space, in Yüksel Pedestrian Zone. Observations made in different dates and under different weather conditions presents that Yüksel Pedestrian Zone is always used by adequate number of people. It never becomes deserted or overcrowded. However, the number of activities

is changing in time, parallel to the number of people using pedestrian zone. It increases at opening and closing hours of shops. It reaches to its peak in midday, namely between hours 11.30 and 14.30 but the capacity of space is still proper.

It can be said that there is a major single point in Yüksel Pedestrian Zone to which interactions, spaces and activities are piled up. In a broader frame, when all Kızılay District is considered, Hürriyet Square can be defined as a physical focal to which all pedestrian activities and interactions are piled up.

In Yüksel Pedestrian Zone, there are subfocalities of interactions. Because of the gridal structure of Yüksel Pedestrian Zone, it seems that the intersection zones of streets are functioning as the focals of interactions. The intersection of Konur and Yüksel Streets, and the one of Karanfil and Yüksel Streets can be categorized, therefore, as subnucleuses. Activities incline to pile up around these nodes, therefore, interactions are intense, in these areas.

These are the places of almost all collective activities in Yüksel Pedestrian Zone. With this feature, they positively effect the standing and sitting choices of people, and therefore, spatial patterns of human interaction. The intensities of interaction are always high at these part of Yüksel Pedestrian Zone.

The physical structure of these spatial units is not very different in these areas. The width of the streets increases at these part of Yüksel Pedestrian Zone. The relations between buildings and spaces are similar as the other part of pedestrian zones and there are no special physical arrangements.

As it is mentioned before the intensity, density and concentration is the most important category. The importance comes from the basic expectation by creation of pedestrian zones that is to achieve an increase in human activities in number duration and scope in the name of social welfare of individuals. For the concentration of pedestrian activities, assembling of activities and pedestrians is the first necessity. To achieve this, the space should also assembled. There are 4 crucial types of the physical arrangements for assembling the spaces, which are orientation of buildings and entrances; the number of entrances; the relation between space and buildings and the width of street.

The spatial configuration of Yüksel Pedestrian Zone is suitable for concentration of activities. Orientation of buildings and entrances are toward the pedestrian spaces. Because of the block buildings with small shops side by side there are lots of shop entrances which makes people easily to move to another exchange zone in almost all Yüksel Pedestrian Zone (Fig.5.6). This results in concentration of human activities in front of the shops, along the facades except for the restaurants and cafes because the space in front of them are used by them and their costumers (Fig.5.7-5.8-5.9). Although this prevents people to stand, meet, etc. in them, they offers a variety for standing, sitting etc. This variety is important for the intensity of interactions because some activities may need more sheltered spaces, some are not. The only exception is the building at the intersection of Konur and Yüksel Streets. There is a bookstore with long facade and one entrance. People are collected around this entrance. The other part of the facade is almost always empty.



Fig. 5.6. Small Shops with many Entrances Personal Archive



Fig. 5.7. Cafes and Restaurants Personal Archive

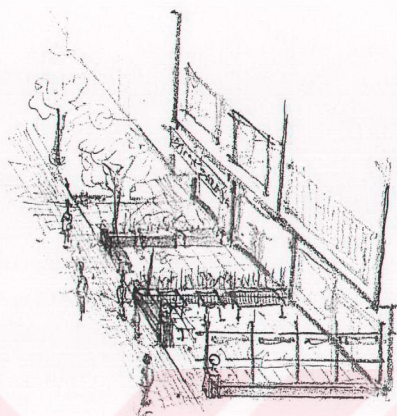


Fig. 5.8. The "Frontyard" of Cafes and Restaurants in Yüksel Street

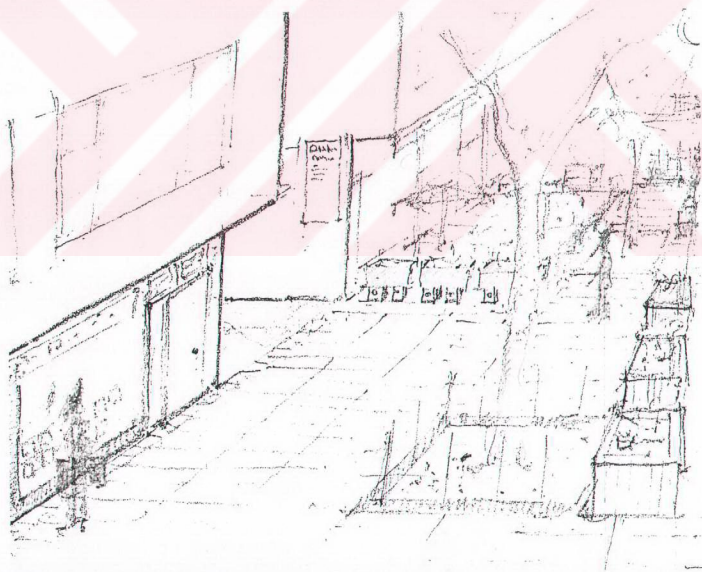


Fig. 5.9. A View from Karanfil Street

The width of Yüksel Pedestrian Zone is also suitable for perception of two sides by walking. It is important because for assembling of activities, the first necessity is to see the activity.

It is not possible to say that there are a significant clustering in Yüksel Pedestrian Zone. In all parts of it, there are similar spatial relations between positive and negative elements. However, in some part of Yüksel Pedestrian Zone, there are affinities of interactions and localization of activities. These have strong ties with the functional structure of Yüksel Pedestrian Zone. However, the physical configuration does not show the clues of clustering. The only character of these spaces are that they allow people to collect and stand easily (Fig.5.10).

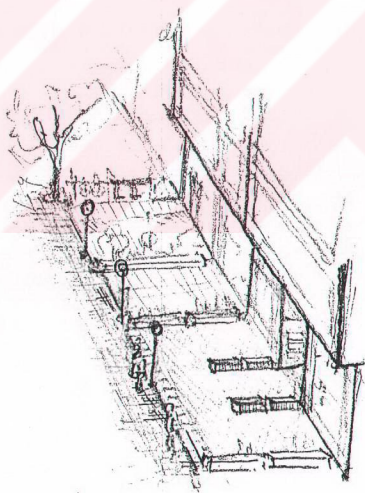


Fig. 5.10. A Type of Physical Arrangements in Konur Street

These spaces are suitable for human communication.

In a study about pedestrian zones, the basic theme of the group insularity-separation-segregation is the borders between public and private realm. The borders in Yüksel Pedestrian Zone are usually separate the cafes and restaurants from the people in locomotion. Most of them are transparent and do not inhibit the contacts and interactions between public and private realm. This effect positively the amplitude of interactions in close environments. Although the number is very less, there are also sharply demarcated borders. The activities in them are close and independent from public realm.

CHAPTER 6

CONCLUSION

This study basically tries to determine and describe the causal relationships between human activities, interactions and communication and spatial configuration of pedestrian zones. A pedestrian zone usually results in an intensity in human activities, however, its relation with spatial configuration is not clearly depicted in urban design circles.

Each human activity on pedestrian zones includes interaction within themselves, and each interaction can also be defined as an attempt to communication. This intensity positively effects the interactions and communications of in an interconnected way. With such an intensity of pedestrian activity, people have important possibilities to learn the city and the social life on it. Pedestrian zones can not be simply defined as spaces between buildings, however, they are settings in which a specified set of pedestrian activities occur. The formation and continuation of activities is strongly tied to urban environment.

It is obvious that face-to-face interaction and communication is not the only way of interaction and communication. There are also mechanically and electronically set interactions and communications. However, interactions on the same piece of environment are significant for their contribution to achieve more common, but equally important details with participation. Seeing

other people in action offers a wealth of sensual variation because of the number of new situations and intense information about social life. Therefore, with these characteristics, face-to-face interaction and communication provide social inspiration and stimulation for individuals, which are important to understand the necessities of social roles and positions in society, and enhance the socialization processes of people.

The type of movement -that is walking- has a key significance in the process of socialization. Because of the speed and flexible character of walking, pedestrians have chance to achieve complex perceptions and therefore, have a much better awareness of urban environment and clearer ideas of activities on them than the drivers or users of public transport.

From vehicles, people can see the urban environment in a restricted sequence. The restriction is not only related with the route of vehicles, but also the speed of vehicles. Because of the speed of vehicles, the freedom of pedestrians to perceive the surroundings is not present for users of vehicles, especially for drivers. The interaction possibilities are reduced because the ability to take information from urban environment is decreased and the character of messages is changed. The detail information from the urban environment for pedestrians is not possible for drivers.

The characteristic of physical movement of pedestrians, in fact, makes social processes spatially structured processes. They are not simply aspatial processes, but they are spatially structured processes and present strong relations with physical arrangements within the urban environment.

The spatial requirements of this socialization, however, are not clearly depicted in contemporary urban design frameworks. The concepts floor area/site ratio and building densities are used to express the relation between socialization and urban space, which are insufficient tools to express the influence of urban space on social processes. Although locational characteristics of pedestrian zones, which can be subject of another study, are also important for the success of pedestrian zones, it should not be forgotten that the spatial configuration has direct influences by formation and continuation of social processes from human activities, to face-to-face communication among people.

There are three crucial points for evaluation of physical configuration with respect to social processes. The first one is the spatial patterns of human interaction, which include the physical movements of pedestrians. The examination of them, therefore should include the spatial arrangements for satisfying safety needs of pedestrians because they directly effect the movements of pedestrians.

Satisfaction of safety needs of pedestrians is important for formation and continuation of social processes. People take part in activities, interact and communicate only if they feel safe and secure. Although there are three important source of insecurity as vehicles, unpleasant weather conditions and criminality, the most crucial one is the safety against vehicles by an evaluation of pedestrian zones because it directly effects the formation of urban space.

Automobiles should be excluded from pedestrian zones because of the negative effects they create for pedestrians. The basic negative effect, in a social manner,

is that they prevent free movement of pedestrians and thus reduce the interaction possibilities.

However, it should not be forgotten that there are also counter-arguments of complete exclusion of vehicles. It may prevent the formation of a true public culture because of two reasons. The first one is that once the liveliness of cars and drivers coming and going is removed from places, they may become dull places in which pedestrian does not want to be. The other is that removing traveling and parking cars from the street results in a reduce of natural surveillance on the street and thus, a sense of insecurity (Oc,1991,238) which may cause individuals fade away from that environment.

The spatial structure should be suitable for social processes, in the context of adapted spaces. The basic attribute, in this sense, is the degree of conformity to the functional requirements of activities which is directly related to the suitability of spatial structure to walking, standing and sitting. They are important for formation and continuation of human activities in pedestrian zones. A pedestrian zone, on which walking is difficult, or where there are no proper standing and sitting opportunities, can never promote adequate usage and activity concentrations. Additionally, the arrangements of space should be sociopedal for promoting the visual and auditory contacts. Therefore, they enhance interaction and communication among people within urban space with which social activities are formed.

The most crucial dimension is the conformity of spatial configuration of urban environment to features of interactions and activities.

There are six groups including interaction, physical and activity components. The most significant category for an evaluation of spatial configuration of pedestrian zones is, in this respect, the intensity-density-concentration category because of the basic assumption by creation of pedestrian zones, that is to achieve an increase the human activities in number, duration and scope, and a high amplitude of interaction in the name of social welfare of individuals.

The evaluation of Yüksel Pedestrian Zone according to the descriptive model developed by Webber shows that it can be classified as a successful pedestrian zone with respect to social processes. The physical features of Yüksel Pedestrian Zone promotes the social processes, from human activities to communication among people.

One of the basic factor, in this respect, is the land-using features of pedestrians on urban space and related to how they use the urban space. Pedestrians using the urban space according to their aims and wills whether the urban environment provides necessary fixed equipment by human activities or not. The best indication of this phenomenon is arises from the analysis of sitting patterns in Yüksel Pedestrian Zone. It is obvious that there are no sufficient primary seating elements in Yüksel Pedestrian Zone, however, there are no sitting problems. People can use the walls of a pool or the landscape elements located for restriction the movement of vehicles, even the curbs as seating places. This shows that people can easily adapt to urban environments for their activities.

The beauty or ornamentation of pedestrian zones has no significant effects on human communication. As it is accepted in Turkish design circles, the visual qualities, with respect to physical organization in Yüksel Pedestrian

Zone is limited, it provides suitable conditions for human communication.

The evaluation of different pedestrian zone examples shows that the approaches to physical organizations vary from country to country, parallel to the dominant urban design understandings. Some of the pedestrian zones, especially the ones in northern Europe, are fulfilled with landscape elements such as waterpools, while in some of them, there are no physical interventions except for pavements. However, in both cases, there are successful examples with respect to human communication. The success of pedestrian zones comes only with adequate usage by people, subsequently, with the opportunities it provides for human communication. However, it should not be forgotten that another important variable for the success of pedestrian zones is related to their locations in cities because the locations, in context of density patterns and spatial distribution of urban functions also affect the adequate usage of pedestrian zones.

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