The Role of Public Open Space in the Transformation of the American Suburbs

by
Dorothea Tabacova
M.Arch., University of Architecture
Sofia, Bulgaria
June 1989

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE MASTER OF SCIENCE IN ARCHITECTURE STUDIES AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY SEPTEMBER 1993

© Dorothea Tabacova 1993. All rights reserved.

The author hereby grants to M.I.T. permission to reproduce and to distribute publicly copies of this thesis document in whole or in part.

Signature of the author

Dorothea Tabacova, Department of Architecture
June 11, 1993

Certified by

Julian Beinart
Professor of Architecture
Thesis Supervisor

Accepted by

Julian Beinart
Chairman, Departmental Committee for Graduate Students
Table of Contents:

ABSTRACT .................................................................................................................................................. 4

INTRODUCTION ........................................................................................................................................ 5

PART I: PUBLIC SPACE IN THE SUBURBS: THEORETICAL BACKGROUND

CHAPTER 1: PUBLIC-PRIVATE CONSIDERATIONS AND THEIR INFLUENCE ON COMMUNITY LIFE ................................................................. 11
  The notions of public and private and their implications on the American suburbs ................... 11
  Suburbia: a glorious expression of privacy ...................................................................................... 15

CHAPTER 2: COMMUNITY LIFE AND SOCIAL INTERACTION IN THE SUBURBS ......................................................... 19
  Suburban community life in the near past ......................................................................................... 19
  Social life in the modern suburbs ..................................................................................................... 23
  Factors affecting the social life in the suburbs .................................................................................. 29

CHAPTER 3: NECESSITY FOR WALKING ................................................................. 33
  Why walk when we can drive? ......................................................................................................... 34
  Walking and social contacts ............................................................................................................. 35
  Do we really need walkable suburban space? ............................................................................... 36
PART II: RECOMMENDATIONS FOR THE DESIGN OF PUBLIC OPEN SPACES IN THE SUBURBS

CHAPTER 4: FUNCTIONAL ORGANIZATION................................................................. 39
  Types of outdoor activities in public spaces......................................................... 40
  Uses of urban public open spaces........................................................................ 43
  Principles of functional organization of suburban public open spaces................. 46
  Design guidelines................................................................................................. 57

CHAPTER 5: LOCATION.......................................................................................... 65
  Location of urban public spaces.......................................................................... 65
  Location of suburban public spaces................................................................. 66
  Design guidelines............................................................................................ 81

CHAPTER 6: CONCLUSIONS ............................................................................... 87

BIBLIOGRAPHY.................................................................................................... 90

ILLUSTRATION SOURCES.................................................................................. 95
The Role of Public Open Space in the Transformation of the American Suburbs

by

Dorothea Tabacova

Submitted to the Department of Architecture on June 11, 1993 in partial fulfillment of the requirements for the Degree of Master of Science in Architecture Studies

ABSTRACT

Since the 1950s the economic and social importance of the suburban phenomenon in America has been rapidly increasing. Despite the radical transformations of metropolitan life over the past two decades, little attention has been paid to the contemporary suburban-metropolitan phenomenon by the architectural and planning professions. Especially neglected has been one aspect of the suburban organization—the role of suburban public space, its influence on the social environment in the suburbs, and its architectural characteristics. The goal of this thesis is to contribute to a better understanding of this issue and to suggest possible solutions.

The thesis examines public open space as a potential center of community life in the suburbs, a place which can bring people together and encourage informal social interaction. The theoretical discussion in the first part of the thesis studies the social and economic reasons for the present deficiency of this type of public space in the suburbs. It examines the changes of life-styles and cultural values in society and the nature of contemporary community life, and evaluates the role of informal social interaction in the suburban neighborhoods. The second part of the thesis explores some of the main issues of the physical organization of public open spaces in the suburban neighborhoods and proposes guidelines for their architectural design.

Thesis Supervisor: Julian Beinart
Title: Professor of Architecture
Introduction

In the twentieth century, suburbia has changed the face of America. The economic and social importance of the suburban phenomenon has been increasing constantly. Before our eyes it has changed from a place that housed a privileged social layer to a place where nearly half of all Americans live, work, shop, and spend most of their lives.

This thesis is concerned with only one part of the modern American suburbia: the residential suburban neighborhoods. More specifically, I will explore the nature of community life in these residential areas and the potential role of local public open spaces to improve the quality of the social and physical environment in the suburbs.

Cities have been the ultimate expression of human civilization for centuries, centers of all aspects of human life--economic, cultural, artistic, and political.

The traditional city, where industry, commerce, and housing were blended, was the predominant city form until the late nineteenth century. With the construction of the railroads evolved the modern metropolis: a familiar organization of central business district, surrounded by the concentric rings of industry and residential suburbs.

Over the last three decades a new phenomenon has been taking place: from a purely residential area, suburbia is acquiring many of the features of the city, attaining new importance. According to authors like Joel Garreau and Robert Fishman, it is on its way to becoming the new center of American civilization. The name of this new hybrid of city and suburb is not yet established: it is called urban village, suburban downtown, suburban activity center, urban core, service city, perimeter city, disurb, exurb, technoburb, or edge city. Emerging at major crossroads or on top of existing old towns, this new
quasi city fabric includes old and new residential developments, adding scattered industrial, office, and service facilities.

The transformation of suburbia in the United States into a self-sufficient world started with the creation of the first enclosed shopping mall in Edina, Illinois in 1956 and by the late 1960s the suburban mall was widely spread. Market places were brought to where people lived. During the 1970s and 1980s, important branches of the industrial economy, like electronics, chemical and pharmaceutic industries, were moving out of the cities. Even the old symbol of the down-town, the office building, found its suburban version in the form of the office park. Already two thirds of all American office facilities are in "edge cities".

Edge cities are very efficient by many quantifiable urban standards: low unemployment rate, profitable real estate markets, variety of shopping, lower crime rate, available child care (Garreau, 1991). Like urban downtown areas, they have tall buildings, bright lights, prestigious hotels, and entertainment facilities. Despite the advantages, it seems that something is missing. During an interview, taken by Garreau, at Tysons Corner, Virginia, people described their new environment as "plastic, hodgepodge, Disneyland, and sterile, ... (lacking) livability, civilization, community, neighborhood, and even a soul" (Garreau, 1991, p.8).

Many explanations can be given of the people's response to the new edge city. I believe that the lack of public space is one of the main reasons why we perceive this environment as cold, foreign, and unattractive. There are no walkable streets or sidewalks in this new world, no sidewalk cafes, public squares, or commercial streets. The public space of the old city has disappeared. What we are creating are islands of segregated functions, connected with a network of highways, surrounded by vast fields of parking lots. The degree of privacy is high: nearly every space is privately owned, carefully controlled, and often with limited access. Yet, this is the place where most Americans live, work, and shop. With the present transformations of suburbia, the importance of creating public space in the suburbs has increased. In the near past a person living in the private world of
residential suburbia would commute every day to work in the city and inevitably become part of its public world. Today, for many people the trip to work is a trip from the private domain of his suburban neighborhood to the private lands of the suburban office park. A study of the Eno Foundation for Transportation shows that suburb-to-suburb commuting is growing rapidly, and in 1980 accounted for twice as many trips as suburb-to-city travel (Fishman, 1990). It is time to look around and ask some questions about the importance, meaning, and expressions of the public realm in our new suburban lifestyles.

This thesis will investigate the residential suburban neighborhoods as part of the new perimeter cities. There is a confusion in the present academic discussion on the parameters of this new fabric type. Joel Garreau gives five criteria to define an edge city: it is a place that has 5 million square feet or more of leasable office space, 600,000 square feet or more of leasable retail space, has more jobs than bedrooms, is perceived by the population as one place, and was nothing like "city" as recently as thirty years ago. He also states that it is "possible to have an Edge City fifty miles or more from the old downtowns, our homes a forty-five-minute commute beyond that, and our 'country place' a three- or four-hour drive beyond that" (Garreau, 1991, p.394). Judging by these definitions, when talking about edge cities, Garreau means primarily the areas of office, industrial, and retail developments which emerge in suburbia, without necessarily including the residential parts. Robert Fishman, on the other hand, points out that unlike the old city, the new city has no single center. Instead, each family home has become the central point for its members. "Families create their own "cities" out of the destinations they can reach (usually traveling by car) in a reasonable length of time" (Fishman, 1990, p.38). From this prospective, the residential areas in suburbia are, I believe, an integral part of the new edge cities with great importance.

My thesis will focus on only one aspect of the physical organization of the residential suburban neighborhood: the public open space as both a catalyst and arena of everyday public life in the suburbs. While public space in the cities and their role in urban public life have attracted
the attention of professionals for decades, the public open space in the suburbs has been neglected both by theoreticians and practitioners, or confined exclusively to the "village greens"--the parks and playgrounds.

Without undermining the role of parks in the suburbs, in my work I will be using the term "public open space" as a potential center of public life; a place which would bring people together and would encourage informal social interaction, as a form of social activity. Social activities are all activities that depend on the presence of others in public spaces. They include children at play, greetings and conversations, group activities of different types, and, finally, passive contacts--simply being among others. Although different kinds of social activities may occur in many places, like community centers, school grounds, gardens, balconies, or the private dwelling, I believe that spontaneous social interaction, active or passive, which involve non restricted part of the residents, is most likely to occur in open and publicly accessible spaces. A space which is equally accessible to everybody, visible, and functionally diverse can enhance community life and give identity to the neighborhood, by bringing together neighbors for frequent, casual interaction.

In my work, I will take the freedom to discuss suburban residential neighborhoods as part of the new edge cities in general, although these developments certainly differ greatly from one to another. Built on the grid system, with functional streets layouts, curvilinear plans, or loops and cluster developments; old railroad suburbs, planned unit developments, Green belts, New towns of the 1960s, or recently built suburbs--any of these types of suburban neighborhoods are potential parts of a new edge city. The provision and character of public space in these areas also varies. I believe, though, that in general, public open space as an animated, multi-functional place, which brings people together, encourages informal social interaction and gives a sense of identity and pride to the residents is missing in many residential areas of American suburbia, especially those that are recently built. I argue that the introduction of a public space with these qualities, in some residential developments, will improve their physical organization and social life, and will give a broader choice for many Americans who now
do not find satisfaction in the present suburban environment.

In the first part of this thesis I will address some of the consequences of the lack of public space on the social life in the contemporary suburban neighborhoods and the importance of creating livable and functionally diverse public open space. The second part of the thesis will suggest recommendations for the design of such space. This thesis does not attempt to propose a solution to all the problems of public life in the residential parts of the new "edge cities", but instead offers some directions for further studies.

Time will show if the city is going to become a historical fact, replaced by the now emerging new forms of suburbia. The increasing importance of suburbia, though, is a fact. It is up to us, architects, to choose whether we are going to take part in this process, or stand back, watching passively at developers and entrepreneurs, molding cities, suburbs, and farmlands, and shaping the American landscape of the future.
PART I

PUBLIC SPACE IN THE SUBURBS: THEORETICAL BACKGROUND

"The contemporary American landscape is a victim of its own success"

Alex Krieger (in Duany and Plater-Zyberk,

"Towns and Town-making Principles", p.11)
Chapter 1:
Public--private considerations and their influence on community life

In this chapter I will try to find some of the reasons of the lack of public open space within the suburban residential neighborhoods. One of the roots of this problem is the very nature of suburbia as a quest for privacy. For this purpose I will examine the origins of suburbia in the context of increased meaning and importance of privacy in modern society. In some respects, the quest for privacy has been too successful in the American suburbs: combined with other factors such as the reliance on the automobile and the economic conditions that made the vast housing market possible, this social and cultural phenomenon has virtually destroyed one form of public life in the suburbs--the small scale everyday community life outdoors that depends on accidental informal social interaction in public spaces.

In this, and the following two chapters, I will try to show that this traditional form of public life is still needed and that the creation of multi-functional public open spaces in the suburban neighborhoods can meet this unsatisfied need.

The notions of public and private and their implications in the American suburbs

Defining public
The first use of the word "public" in English was to express that which is of common good to society (Sennett, 1987). In 19th century French dictionaries
public is defined as "that which belongs to the entire people, concerns the entire people, emanates from the entire people" (Aries and Duby, 1987). J. B. Jackson (1987) defines public space as "created and maintained by public authority, accessible to all citizens for their use and enjoyment". Hannah Arendt (1987) describes the term "public" as signifying "the world itself, in so far as it is common to all of us and distinguished from our privately owned place in it." Public space can be defined by dimensions such as access, ownership, control, and meaning. In most cases, these criteria can be easily determined. Very often, though, it is impossible to draw a clear line between private and public. A privately own and controlled shopping mall is one of the most popular "public" places in the contemporary suburbia. A suburban community center, built and maintained by community funds, is often regarded as "belonging" to the residents who take part in its organized activities in a regular basis. For the purpose of this thesis I will use the definition of Richard Sennett: "a res publica stands in general for those bonds of association and mutual commitment which exist between people who are not joined together by ties of family or intimate association; it is the bond of a crowd, of a 'people', of a polity, rather than bonds of family and friends" (Sennett, 1974, p.3). In these terms, I believe that we can classify suburbia as one of the most private areas of the American metropolis.

Origins of suburbia: a striving for privacy
Suburbia is not a modern invention. Suburbia, as an area beyond, but close to the city wall and inhibited by people whose lives were centered on the city, was known since the existence of cities. Suburban villas and streets have been discovered by archeologists as far as four miles away from the walls of the ancient Ur. The gymnasium and the academy of almost any ancient Greek city were located outside of the walls. With the security ensured by military and political power, the Romans felt safe to live beyond the city walls. In medieval times the institutional and residential expansion beyond the city was repeated.

Among many other reasons, like the need for large spatial areas which the city could not provide, fear of disease in times when epidemics took the life of
thousands in the cities, closeness to nature and a more healthy life, a very important impetus for maintaining a residence in the suburbs was the privacy that it provided. In the Fifteenth century Leone Batista Alberti wrote: "There is a vast satisfaction in a convenient retreat near the town, where a man is at liberty to do just what he pleases ... I, for my part, am not for having a (house) in a place ... (where) I must never venture to appear at my door without being completely dressed" (Goldston, 1970, p.17).

For centuries such an escape into a world of privacy was accessible only for the rich. Industrialization brought cheap public transportation: railroads, subways, and trolleys. Publicly financed highways and mass production of affordable automobiles followed. An industrialized housing industry produced inexpensive suburban homes. Privacy became available to the large of middle class of America.

**The need for privacy**

The need to be apart from others, to have one's "own place" is deeply rooted in human psychology. It probably dates back to prehistoric times when families split from the tribe to live in separate huts. It is a need which distinguishes humans from the animal world. The notion of privacy is associated with the sense of security from the outside world, a sheltered place where we are among friends and family. Being in private gives us a unique sense of freedom. In public we are obliged to submit to the rules of society. We are being observed and controlled by the mere presence of the "others". We put on masks and adopt behaviors in an attempt to create a public image of ourselves. In private we can be what we are. We can concentrate and be creative. Liberated temporarily from the constraints of social laws, we generate the energy to be again in public without losing our own self. In private we seek out a "reflection, that of what our psyches are, what is authentic in our feelings" (Sennett, 1987).
Interrelations between public and private
Exploring the interconnection between public and private in the 18th century, Richard Sennett (1974, p.91) writes: "...speaking of those two realms, they must be thought as a molecule: they were concurrent human modes of expression, located in different social settings, which were correctives to each other." The public realm, associated with culture, was a corrective to the private, associated with nature, in setting standards for civility. The private realm was to check the public in terms of where stood the boundaries between the public obligations and the private rights. Both realms were still balanced and co-existed in a mutual interdependence. According to Sennett, the changes in public life in the 19th century paved the way to the "modern erasure of res publica". In the 19th century, with the turbulent changes in the economic, social, cultural, and ideological sphere, the importance and attention to the individual rose to an unprecedented degree. The individual personality became a social category, "the individual and his peculiar strengths, desires, and tastes became permanently enshrined as a social idea" (Sennett, p.126).

The private world of the twentieth century
The trends of diminishing the role of public life which have been seeded in the last two centuries have fully developed in the twentieth century. Many recent sociological studies, in tracing the several-hundred-year transformations of public life, come to the conclusion that its role has been gradually reduced. "Decline" or "fall" or "loss" of public life are among the expressions commonly being used. (Arendt, 1958, Johnson, 1972, Sennett, 1978, Bellah, 1985). Sennett, for example, writes about the modern deadening of the res publica, the tyranny of the intimate society, the end of the public culture.

While in the past, time spent in private was alternated with frequent and socially important experiences in the public world, in the second part of the twentieth century the private realm has become the predominant feature of our lives. Some of the factors which result in an extensive social and spatial privatization are the major changes in cultural and social value systems and changes in life-styles and attitudes. Privacy is the center of modern cultural ideology.
An important cultural and social value of privacy is its association with social status. Ability to afford privacy is one measure of power in American society. "From private retreats with 'No Trespassing' signs, to private offices with secretaries standing guard, to private limousines, yachts, and so forth, American culture proclaims that resources buy privacy" (Merry, 1987, p.57). Physical expressions of independence and separation are only one way to declare the affordability of privacy. Social behavior is another. Limiting social contacts to personally chosen circle of acquaintances, minimizing social interaction with neighbors or strangers is one of the forms to demonstrate independence from others and to assert power.

Suburbia: a glorious expression of privacy

Although privatization is a process encompassing all aspects of life, its consequences are particularly obvious in the suburbs. The present organization of suburbia makes possible the highest degree of privacy: the single family detached house, surrounded by private land, physically separated from the rest of the community.

In the American suburbs, for the first time in history, the luxury to have a place of residence offering such high level of privacy became available to a large number of people. Privacy is affordable: even families with moderate incomes can find a single family detached house which corresponds to their financial resources. Differences in financial status reflect only the degree of privacy that the suburban home provides: size of the lot, distance from the house to the street, private driveways, fences, guards, and security systems.

Privacy is desirable, since it is a symbol of economic prosperity and power. Consequently, the public space in
the suburbs is minimized. What might be perceived as "public" in many cases are only the wide empty streets, often without sidewalks, accommodating automobiles far better than pedestrians. This physical organization affects in many ways the community life and the social atmosphere in the American suburbs.

Privacy: physical dimensions
The physical organization of the typical suburban development encourages in every way the social trends of alienation and loose social relations between neighbors. The single family detached house with the surrounding private yard, private driveway, and garage is still the most typical "structuring cell" of a suburban neighborhood. Wide streets sometimes without sidewalks, built to accommodate the automobile, rather than the pedestrian complete the picture. Shrubbery along the front yards and, sometimes, fences between the back yards guard the privacy of each home. There are few reasons to be on the streets of the neighborhood, and few destinations to go on foot. Since neighbors are not welcomed to encroach each other's private grounds, the opportunities to meet others within the residential area are minimized.

Providing a public space within the neighborhoods will present opportunities for the residents to communicate outside the boundaries of the private home. It will introduce a public area within the private subdivisions of the suburb, inducing activities, attitudes and social relations characteristic of the public world. An architecturally attractive public space, providing facilities enjoyed and frequently used by the members of the community, has a high potential of becoming a place for informal interaction, a place to meet or simply to be among others.

Privacy: social dimensions
The increased cultural value of privacy results in diminishing the role of accidental and informal social contacts. This is particularly true in residential neighborhoods, where social interaction between neighbors seldom brings personal profits, like potential professional connections or social prestige.
In discussing privacy as a social and cultural phenomenon Merry (1987) defines privacy as the ability to limit social contact to those one chooses. "Private social lives are those in which social relationships are based on choice: the individual constructs a set of relationships based on those he or she wishes to see and avoids others" (Merry, p.55). We choose our friends by common interests, social positions, or professional pursuits. Neighbors, in many cases, might not be among the people with whom we wish to have close contacts. Usually they are simply the people who live next door. Physically and economically independent from our neighbors, we often avoid being too close to them, because this would be an intrusion into their and our privacy. Relations with neighbors are generally kept at a polite, superficially friendly level.

The survey made by Merry between 1980 and 1985 in Riverdale and Hamilton, suburban developments near Jackson (for the purposes of her research, the author states that these names are not the original ones), showed that in both communities the respondents repeatedly emphasized that in their neighborhoods people kept to themselves and avoided intimacy with their neighbors. A resident of Riverdale stated: "This is a neighborhood where people don't bother each other too much, where they mind their own business". New comers to Hamilton reported that it was "hard to get to know people, that they do not talk to each other much or pay much attention to each other" (Merry, 1987). The studies of Suttles (1972), Mead (1973), and Gans (1963) show similar tendencies of avoidance of close social contacts between neighbors in residential neighborhoods.

It would be incorrect to claim that all forms of public life have disappeared. Even with the loss of civility and the reduction of direct social contacts with strangers to a minimum, people still come together and act together: in neighborhood associations, boards of local institutions, church activities, voluntary organizations, and so on. The difference is that most of these forms of public life do not take place in the street or the square. In fact, many of our "public environments" are not physical places at all, but channels of communication. In the second chapter I
will discuss in more detail these new types of social communication.

What is the nature of community life in the modern suburbs? Have all forms of public life disappeared from the typical suburban neighborhoods? Would an improvement of the physical conditions, providing opportunities for social interaction be welcomed by the residents, or will public open spaces remain a useless effort to force old forms of public life over changed lifestyles? These are some of the questions that I will try to answer in the next chapter.

My discussion will be focused on only one side of public life in the suburbs: the familiar, local, social life. This small scale neighborhood life--a chat with a neighbor, a bargain at the local grocery store, or a simple rest in a local public place where others' activities can be observed, has almost disappeared in contemporary suburbs. In this terms, it can be claimed that alienation, as physical separation of people, is typical for most suburban developments. While face-to-face encounters might not have the importance of exchanging information, shaping political concepts and comparing opinions that they used to have in the past, they still have the potential to create a place of spectacle, entertainment, pleasure, and sociability.
Chapter 2:
Community life and social interaction in the suburbs

The degree to which architecture can affect social life is a subject of controversy. Many factors like culture, personal perception, or physical characteristics of a place affect social behavior in a complex way. Yet, throughout history, architects, philosophers, sociologists, and economists have been drawing connections between social life and physical environment, proposing a wide variety of utopian cities and ideal neighborhoods. Although some of them have actually been built, none has generated a new social order or revolutionary changes in life-styles. Physical environments, though, can affect social life by supporting or inhibiting existing trends in society through encouraging or suppressing a vast range of social activities.

In this chapter I will discuss the nature of community life in the residential suburban neighborhoods and the changes that it has undergone over the past few decades. I will also trace the connections between community life and physical environment in the suburbs and the potential of public space to enhance suburban social life.
Suburban community life in the near past

What is a community?
Mead defines community as "a group of people with ties to each other, ties of kinship and friendship, ties of shared work and shared responsibility and shared pleasure." She claims that a residential neighborhood should satisfy "the people's need for community and continuity, their need for participation in constructing their own communities, their need for choice in where and with whom they live, their need to remain or leave or return to places they have lived before, and their need to provide their children with the closeness to the natural world" (Mead, 1977, p. 248).

The characteristics that Mead points out to be important for an ideal residential neighborhood might be desirable for many residents. In fact, statistical surveys (Whyte, 1988, Choldin, 1985) show that closeness to nature and better conditions for rearing children are among the main reasons for choosing a particular location and many suburban developments satisfy these requirements. Her recommendations for possibilities to choose a place of residence according to social links from the past, or family ties, however, are difficult to satisfy with the present structure of American suburbs. Furthermore, these are not usually among the priorities for the residents (Clark, 1966). A community with close links of friendship between its members is also, I believe, an idealized image, with the exception of some ethnic neighborhoods.

More realistic is the definition of community proposed by Clark, as a place in which people know each other. A community gives people a sense of knowing each another, provides a feeling of social belonging, even though its members might not know their neighbors personally. A community is not a place where everybody else is a stranger (Clark, 1966). Unfortunately, few of the respondents during my interviews in suburban neighborhoods, expressed such feelings about their communities.
Suburban community of the middle of the century

A new suburban development is typically settled not by social groups, but by individual families. The choice of location of residence is usually determined by where a particular type of affordable house can be found, how far it is to one's place of work, and how convenient is the available transportation. Other factors, like class and racial structure of the community, or surrounding landscape are often taken into consideration. Social associations from the past have very little influence on the choice of residence. Friendship and kinship are certainly not among the decisive factors when choosing a new home. A new suburban community begins very much as a community of strangers. The breaking of social ties from the past is one of the prices paid for suburban residence.

The new suburban communities of the 50s and the 60s soon developed into communities providing social satisfaction. "People got to know each other. Associations of different sorts were formed and among some of the residents warm friendships developed" (Clark, 1966, p.141). The contemporary suburban communities, on the other hand, often remain very much conglomerations of strangers, communities of "limited liability", with few local contacts, limited interaction, loose connections to the neighborhood, and lack of identity.

Many writings from the middle of the century emphasize that friendship, cooperation and close contact between neighbors were part of the everyday reality in the suburbs. In an article titled "Life in the New Suburbia" in The New York Times Magazine from January 15, 1950, Ralph Martin writes with excitement about a new suburban development about thirty miles from New York. Like many authors of this period, he is fascinated how this development, like many others, "emerged out of nothingness and in a few months a community is formed". It was not just another bedroom of New York city. It was more like a "separate place", because it had a bank, a post office, a telephone building, a school and a child care center. There was the Village Green restaurant where every Saturday night one could go dancing for free. There were birthday parties where everybody in the community was invited. With a
welcoming party each newly arrived resident became part of the community. During the daytime this community consisted primarily of mothers who in the morning used to drive their husbands to railway station and then enjoy "Cub Scouts, Brownies, ballet class, day camp, library reading hour, haircuts, dental checkups, and cookie sales all on their own tight suburban island" (Kelly, 1958, p.25.). The fathers played bowling in the evenings, went to adult education courses, discussed the cheapest insurance for the thermopane windows, and compared electric bills to see if any one bill was out of balance. For the children it was a literal paradise with lots of place to play, green space, and fresh air. People were "always stopping to talk to each other". There was a "small town friendliness". In fact, even too much friendliness: some residents moved out because they were "introverts who like invisible moats around their homes, or else they don't know how to cope with over exuberant neighbors who insist on coming in without knocking" (Martin, 1950, p.20). Privacy was not a very important concern for the residents of these suburban developments. The next door neighbor would bring in your bottle of milk while you were not at home to prevent it from getting rotten. Any neighbor could drop by for a chat at any time unexpected or bring his children for baby-sitting for the evening. The sacred rights of the owner on its territory were certainly subconsciously present, but seldom executed in practice.

The physical environment in many of these suburbs was not very different from the one today. With few exceptions, the public space in the neighborhoods was limited to the "village greens", the school grounds, and the few sports facilities. There did not seem to be a need for a designated public open space for social interaction, like a local shopping street within walking distance where one could meet his or her neighbors, or have a cup of coffee on the sidewalk, because the neighbors came to your door and the front yard was almost as public as the sidewalk in front of the house.

It is questionable how real this idealized neighborhood community was. Many articles of the same period give voice to the feelings of isolation and loneliness in the suburbs. The life of the suburban housewife was commonly associated with isolation, boredom, and loneliness (Greenhouse, 1974). Although child centered,
suburbia with its homogeneity of population, over-organized life-style, mothers who were too much present, and fathers who were too little present, were often cited to be not such a desirable environment for rearing children (Kelly, 1974). I will not debate the degree to which the opinions cited by Kelly and Martin coincided with reality. What is important is that there undoubtedly existed a sense of community in the neighborhoods of the 1950s and 1960s.

Social life in the modern suburbs

The kind of social interaction which was common in the suburbs of the 1960s is probably gone forever. With 68% of the women working, there are no more day parties or cookie sales. We certainly do not want neighbors coming through our back door all of the time. We cherish our privacy much more and object to intruders. "Adults still socialize in the public space of the modern city. And children still play. But both do so to a far lesser degree than did their urban ancestors. Neither activity is actually illegal, but both can be discouraged and controlled" (Lofland, 1973). Lofland emphasizes both the diminishing of social activities in urban public spaces, because of changes of society, and the capacity of outside factors, like regulations and architectural design, to further discourage these activities. Although he refers to the urban environment, his ideas apply, to a great extent, to the suburban neighborhoods. The lack of informal social interaction outdoors is even more apparent in the suburban areas, since there are very few places in the neighborhoods, where such contacts can take place.

Personal contacts

It is unrealistic to expect close personal contacts between neighbors in the residential suburbs. A neighborhood is usually chosen for the quality of housing or schools, for convenient location, or to assert a certain social status. Family relations or previous acquaintances seldom influence the choice on a place of residence. Close relationships are usually found within the network of
people that we know from the past, or new acquaintances with similar professional interests, hobbies, common interests. This network of friends extends beyond the boundaries of the neighborhood. In fact, we intentionally do not choose our friends among neighbors, since intimate relationships within the neighborhood would be too great a threat to our privacy.

An atmosphere of polite and impersonal sociability is usually maintained in the suburban neighborhood. People say "hello" on the streets on the rare occasions when they meet a neighbor, but avoid further involvement. During my interviews in Fiddler's Green, a suburban development in Framingham, Massachusetts, 80% of the respondents had a general idea of the occupation of the neighbors on the same street, but did not know what their exact professional position was. The residents stated that they are not particularly interested in their neighbors: they did not think that they knew them and did not want to. The result is a community of strangers, gathered by the mere fact that they live next to each other, with little interest in social contacts with neighbors.

These attitudes are caused by complex social and economic reasons, and architectural design can hardly change them significantly. Does this mean that attempts to create "sociable" public space in the suburbs are bound to fail? I think not, since social interaction does not necessarily require close relationships. In fact, introducing a public space in the neighborhoods will provide the physical conditions for needed and unsatisfied social activities.

The stage of a public space gives people the opportunity to enact civic and social roles which encourage experimentation of new ideas and possibly of new lifestyles. Direct face-to-face accidental and informal exchange of information is a check point for personal values and ideals. Participation, rather than passive observance, is at the heart of a community. These types of socializing are most probable to occur in public space, where we are among others, not in a close circle of chosen friends or in the safe privacy of the house. Without a common public space in the suburban neighborhoods, social contacts are bound to be personal, intrusive to the privacy of the homes.
Privatizing social life

It would be incorrect to claim that all social life in the suburbs has decayed. Many forms of community activities, like participation in voluntary and charity organizations, or direct engagement in local political activities, have actually flourished in the contemporary suburbs. Private clubs, interest groups, and sport organizations are abundant. Although drawing people together and inducing communication, these forms of social activities have several very important characteristics. Firstly, the social contacts occurring during such activities are to a great extent personally chosen. In these terms, participation in these activities is another expression of the private social life, discussed in the previous chapter. Secondly, they usually involve limited groups of people, separated by life-cycle stage, socio-economic, or family status, thus representing a form of social segregation. Thirdly, all of the activities listed above require preliminary organization and specific intention. The range of types of social interactions that are expected by the participants in these activities is limited. Accidental contacts or activities are reduced to a minimum. Fourthly, such activities take place on the school grounds, the tennis courts, the golf course, or in the community center: places, often publicly owned and controlled, and, in most cases, with free accessibility, but perceived as "belonging" to only certain groups of the community. Finally, any of these activities requires a particular setting, not permitting diversity of functions. This is another example of the trend in the modern metropolis to relegate special activities to specialized place.

Reston, Virginia is one of the most famous planned communities in the United States. In its original plan, special efforts were made to avoid homogeneity of age, class, or race and to create a diverse, healthy community with rich social life. Among the many instruments used in this project were the "clustered housing" concept, age- and price-mixed housing, pre-planned business areas, and resident-owned open space and recreational facilities.

The community center in Reston, Virginia, located in Hunter Woods Village, one of the five neighborhoods of Reston, was built to bring people together and develop a
strong sense of community. It offers a wide variety of facilities: a 266-seat theater, 25-meter swimming pool, photography darkroom, woodshop, community social hall, snack bar, art studio, dance studio, and seven meeting rooms. It is the "home" of many clubs and organizations. Surprisingly, during the interviews that I had with residents of Reston, only 15% of the respondents said that they visit the community center more than twice a year. "I have a friend in the dance studio", a woman said, "she goes there every week. I just don't have the time to go to classes." A member of the photo studio, a 15 year old girl, said that she goes to the classes once a week, but visits only the classroom and meets only with the other members of the club: "There is another class and the end of the corridor, I think in history, but they start and finish later than us and I don't meet them". A young man stated: "Why should I go there? It's for the teenagers and the old folks." A woman in her mid 60s said that she does not visit the community center, "because it is for the town meetings, at other times there is nobody there". Meanwhile, the beautiful building of Reston community center remains empty, very far from being a place for social contacts and interaction.

An open public space in the suburban neighborhood, visible and easily accessible, providing shopping, different services, places to share a cup of coffee, to rest and observe or participate in different activities, has the potential of becoming a public space, generating accidental social contacts with not pre-chosen neighbors. It can introduce variety and broader social contacts in the neighborhood, as well as a direct sense of being part of the community.

The new Town Center of Reston, Virginia proves unmistakably the above statements. In 1986 RTKL of Baltimore won the design competition for a new town center held by the Reston Land Corporation and developers Himmel/MKD. The project was completed in the summer of 1990 in collaboration with Sasaki Associates of Watertown, Massachusetts. As George Pilorge, vice president of RTKL states, the intention was to create "an instant city to fill a hole in the doughnut", to create an urban core that "can flourish in the traditional ways that communities have developed over the centuries", and, through the design of open spaces, to create a spirited street life.
The project includes a 515-bed hotel, six streetside restaurants, more than 60 shops, an 11-screen theater, 500,000 square feet of office space, and parking for more than 1,000 cars. Organized along a tree-lined main street and a town square, the project is a modern reminder of the American small town. Market Street as a primarily pedestrian environment, with broad street sidewalks, planting, and carefully selected street furniture, though it accommodates cars in two driving lanes and curbside parking. There is a place to have a meal or a cup of coffee on the sidewalk, or behind the glass walls of the restaurants and cafeterias; to sit on a bench and watch people go by; to meet a friend in front of the movie theater, or to peek in the many curious stores. The plaza across Market Street from Fountain Square, though less pompously designed, is animated by concerts in the summer, ice-skating in winter, and seasonal festivals. The variety of activities attracts not only residents of Reston, but people from the vicinity. It is a favorite place to spend a Sunday afternoon or a few hours after work. On a cold Sunday in December, the new town center of Reston was literally crowded.

Fig. 1. Plan of the Town Center of Reston, Virginia.
Fig. 2. The ice-ring on Fountain Square attracts many residents.
New types of social interaction?

Although in the previous paragraphs I have shown that suburban life has turned inward, centered in the house, I have to point out another polar trend: the expansion of a person's world by means of modern technical inventions. Through information technologies, media, and advanced transportation systems people are connected to much broader geographical areas and population groups. Social contacts extend far beyond the neighborhood. In this sense social and professional life for many people has turned outwards.

Modern technological advances have introduced new forms of public life. Most of these forms are non spatial in character and make possible communications over unlimited territories. Some few examples of these nontraditional forms of public life are:

- telecommunication ... This has brought us closer to our relatives and friends in different neighborhoods, cities, states and even countries, without leaving the privacy of our homes, or even our cars. Shopping, work activities, and access to entertainment are increasingly dependent on our telephones, diminishing the role of face-to-face contact.
- information technology... speed, capability, storage of information, have become indispensable. It is possible now to accomplish many professional duties from the comfort of one's own home. Direct contact is not necessary any more for a broad range of activities.
- print and electronic media ... These once broadcasted primarily one-way, but have become more interactive, permitting simultaneous communication of larger numbers of people. An example is call-in radio talk shows which offer an opportunity for public debate without public gathering.
- the network of airlines ... This has made possible the expansion of special interest groups without neighborhood involvement. Conferences and meeting discussions bring together people from substantial distances to locations outside of the communities of any of the individual members.

The new forms of public life which these technical innovations are bringing are certainly real and valuable. However, regardless to how well they connect us
technically to the world, they do not replace the need for friendly social atmosphere in the place that we live. In fact, if professional contacts are going to require less direct personal contacts, and could be achieved from the privacy of the home, it will be even more important to provide opportunities for face-to-face encounters in the residential areas. An attractive public open space in the neighborhoods has the potential to do that.

Factors affecting social life in the suburbs

The role of mobility
The nucleus of a community is traditionally formed by people who already know each other, have lived in the same neighborhood for some time, and share similar interests. It is frequently cited that in the United States people move on the average of every 5 years (Choldin, 1985). The location and physical characteristics of home are not permanent features in a person's life anymore. Mobility is often a response to new job possibilities, opportunities for better housing, an attempt to escape from stress, or takes less "acceptable" forms as mobility of hoboes, migrants, or homeless. Regardless of the reasons, the result is obvious: with the increased mobility in the society, the core of old residents in the neighborhoods is present less often than in the past. It is important then to create a physical environment in the suburbs which will give opportunities to people to get to know their new neighbors.

The family in the suburbs
Another modern social phenomena, connected with the increased mobility in society and the changes in family structures, is the spatial dispersion of families. "Family members are no longer held together by the economic imperatives or localism of the past" (Rivlin, 1987). Recent studies show that with the extension of life cycle and the increasing number of elderly persons the multigenerational household may become more common, that there is evidence of the return of adult children to the parents home as a result of economic pressures, and that some adults are regularly involved in caretaking of elderly
parents, which often involves travel across considerable
distances (Rivlin, 1987). Nevertheless, the majority of
suburban neighborhoods remains quite homogeneous by
age. The times when extended families lived in one big
family house or family members lived around the corner
and married daughters saw their mothers several times a
day are gone forever. On the other hand, a mix of
generations is an important characteristic of a community.
We need neighborhoods where communication between
three generations is possible, where children can play
and grow, where adults can take care of children and
parents, where senior citizens can enjoy living close to
children and grand children. Continuity in generations is
a basic human need, strongest in infancy and early
childhood and often essential for the sanity of the old.
Spending more time at home and having more spare
time, the elderly are likely to form the nucleus of a
community.

I am not proposing here a model by which all suburban
neighborhoods should be planned, but rather outline the
importance of providing a choice for people who wish to
live in the suburbs. Unfortunately, the typical suburban
organization does nor meet the needs of elderly people.
During an interview, a woman from Hopkington,
Worcester expressed her concern about her mother:
retired, 65 years old woman, she was living in a new
suburban development in Virginia. "She is very
depressed, because she can't go anywhere in her
neighborhood. There is just nowhere to go to!", the
daughter said, "We go to visit at least once a month, but
otherwise she often does not meet anybody for days!
We want her to come and live with us, but it won't be any
different: the children are at school all day, and the
nearest supermarket is ten minutes drive from home."
They were discussing the possibility of her mother
moving to a retirement community.

There are many ways through which architecture and
planning can address this problem: introducing diverse
types of housing, creating physical layout where different
levels of privacy would be available, providing social
services, participate in the planning process, and so on.
The provision of public space in the suburbs can
enhance substantially the living conditions of the elderly:
it can be an attractive place for the elderly to go to, a
place where small shopping can be done, a place to meet friends, to share a meal, or to observe others from a bench in the sun or a table on the sidewalk.

The automobile
The ever broadening use of the automobile has significant implications for neighborhood community life. The automobile has extended the hinterland for people beyond their immediate area. In fact, distance is no longer measured by blocks, miles or kilometers, but in time: the supermarket is 10 minutes away, the nearest shopping mall is 30 minutes in another direction, and one's job 40 minutes by yet another route (Fishman, 1987). "The local area is no longer the focus for most people, as they move across expanses to work, seek entertainment, visit families, shop and obtain needed services" (Rivlin, 1987). It is not surprising then that social contacts extend well beyond the neighborhood. Since long distances are not an obstacle for maintaining a network of personally chosen friends and acquaintances, community life within the neighborhood seems much less needed.

The shopping mall
The automobile has made possible another 20th century phenomenon--the shopping mall. Highly centralized and controlled, the mall is very different from the small neighborhood store. The mall and the supermarket attract much larger groups of people together than the local store in the past. Going to "the mall" is a common entertainment activity for many: "the average American now visits a shopping mall once a week, more often than the attends church", notes Robert Fishman (1987). He further points out that the mall has become "the center of entertainment and community life in many new cities where no downtown has ever existed". It is hard to classify the time spent in a shopping mall as "community life". It is true that senior citizens, families, and single adults often go there, sometimes in groups, but these groups include friends, who have intentionally decided to go together and very seldom engage in any kind of social interaction with other groups or single customers. Once inside the mall, people remain strangers, occupied with their personal activities and seldom paying attention to others. The casual social contacts--small conversations, short exchange of information, gossip, casual remarks, or
greetings, so common in the neighborhood store, simply do not happen in the mall. The inner corridors of the shopping mall, functionally so similar to the old sidewalk in front of the store, have never succeeded in adopting its function as a popular place for social contacts in the past. One exception is the use of the shopping mall for gathering place by teenagers, who often succeed in communicating and making new acquaintances there. This attitude, though, is typical for all young people, regardless of the location where it takes place.

Providing public space in the suburban neighborhoods, where small shopping, especially goods for everyday use would be available, has a high potential of improving community life in the neighborhoods. The combination of shelter, which contemporary suburbs now provide, and essential commodities, will endow the neighborhood with life-sustaining functions. These local stores will certainly not replace the shopping mall, or the big supermarket, but very much like the convenience stores in the city, will attract a generally constant range of customers, who will feel part of a community by having something in common: the use of the same store. Because of the much smaller scale of these commodities, personal contacts are more probable. As part of a small scale community center located within walking distance from the residences, in architecturally attractive pedestrian areas, where other facilities, like a restaurant, a cafeteria, nursery school, day care center, library, a post office, or an automatic teller machine will be available, these local commodities are very likely to attract residents and provoke social interaction.
Chapter 3:  
Necessity for walking

In past times walking has always played an important role in everyday life. Trading, manufacturing, going to work or to school, getting water, getting the news, shopping, entertainment—almost any everyday activity was closely connected with walking. The streets of any European city were full of people from dawn to dark. A great part of people's life happened on the street. Walking on the main street of a small town in the beginning of the 20th century was essential part of everyday's life.

The culture and economy of the industrialized modern societies have brought many changes to nature and frequency of activities which happen on the street. We do not produce, sleep, punish criminals, or give birth on the street any more. We have specialized places for everything. We do not need a main street to go for a walk, to see and be seen. We have parks, museums and television sets. The car is the most common way of transportation in the industrialized world. The pedestrian space of the street seems to have lost its importance. However, this assumption is obviously incorrect: the streets in the old parts of the European cities are still full of people and a most desirable place to be for natives and foreigners; Newbury street in Boston is one of the landmarks of the city. We go there, because we know that others will be there too. The street gives us a special feeling of being part of the city and its people.

Many authors stand up to defend the pedestrian use of the city's streets and the tradition to create "livable" streets and spaces in the city. In the same time the American suburb, the place where nearly half of the Americans live, is left behind. In the following pages, I will try to prove that walking is still a needed activity in the
American suburb and trace the connection between walking and socializing. I believe that it is the responsibility of architects and planners to respond to this unsatisfied need of the suburban residents.

Why walk when we can drive?

It is a widely accepted fact that life in America is closely associated with the use of the car. The daily use of a car, especially in the suburban life style, seems unavoidable. My argument is not going to be against the use of the car for commuting. It has already been pointed out in the previous chapter that it is unreasonable to believe that with careful planning most of the working population of a given suburb will work within walking distance from their living place. The problem is that in the contemporary American suburb the car is used much more than it should be necessary. With the housing developments being exclusively unifunctional, one is forced to use the car for everything: taking the children to child care center or school, going to the grocery store, the sports club, the church. It seems to be part of the typical American life style and often is regarded as natural and quite acceptable. I argue that this is a very doubtful presumption.

The problems of many population groups created by the vital importance of the use of automobile can be directly observed. Teenagers and elderly people are the most obvious example. If a person is too young or too old to have a driving license or has health problems driving a car, he becomes totally dependable on being driven for any kind of activity.

Less obvious are the social consequences of the reign of the automobile in the suburbs. In "The World of Strangers" Lyn Lofland points out that "one of the most fascinating characteristics of the automobile is its ability to surround its occupants in a cocoon of privacy as they move through public space of the city. ...It thereby enables them to avoid for long stretches of time any necessity to confront the world of strangers". Thus the car transforms from a technical utility into an isolation cell.
Undoubtedly it supplies a unique private space for the individual in public. Like the covered carriages of the aristocrats of the 19th century, it allows some personal freedom, but now for a broader range of society, it provides an opportunity to be alone among others. It is a place to rest in private after work, to smoke a cigarette forbidden elsewhere, provides a free of guilt escape from the fuss at home with the children or the rush at the working place. In fact, quite desirable and useful properties if only there were alternatives of choice.

Unfortunately, such alternatives are minimized at present. The suburban shopping mall, the supermarket, or the place of work (which is within the suburban environment for increasing part of the population) certainly offer the possibility for the suburban resident to be among others. Any of these activities, though, requires a specific intention and involve a trip in the private space of the car. Within the neighborhoods, there are few opportunities to meet people or to engage in active or passive direct social interaction. One of the main reasons for this reality is the lack of "walkable" public space in the suburban neighborhoods.

Walking and social contacts

In "Promoting Walking as a Prerequisite for livable Streets" Dietrich Gabrecht states: "A street and plaza environment that is pleasant to walk in and to walk through is--I claim-- an environment that makes many other individual and social activities possible". The act of walking in public space has many advantages for the walker. It involves close contact with the environment, physical exercise, sense of autonomy, since it does not depend on any technical systems. But most importantly, it necessarily involves communication with other people. The mere fact that one is physically among others, unprotected by the shell of a car and sharing a common space, is a form of social interaction.

Lyn Lofland defines a stranger as "anyone personally unknown to the actor of reference, but visually available to him". Further on she stresses on the unstable distinction between strangers and personally known others and on the constant transformations from one to another. A walkable public space facilitates these
transformations and the occurrence of social contacts is probable.

Being in a walkable public space we notice other people: their age, sex, clothes. During the short moment of exchanging a glance with a stranger we register some traits of his appearance and even character and during this split of a second we become closer with this clearly strange person. Even though this seems to be a quite abstract generalization, I believe that these short moments of personal contact with other people are the essence of "livable" places, of places in which we feel that we are a part of.

Unfortunately, the possibilities of walking nowadays are substantially reduced. "This activity remains legal, but the extent to which it is approved is questionable. Like other historic necessities (like cooking over fire), it has, in the modern world, become largely a recreational activity, indulged in by masochistic cultists." (Lofland, 1973, p.73). This is especially true in the suburbs where the spatial dispersion of housing and facilities make the use of the car a constant necessity. Since few or none commercial, cultural, or service facilities are within walking distance from the homes, walking is reduced to a form of physical exercise or "workout".

Do we really need walkable suburban space?

My research has clearly shown that Americans like to walk, want to walk, and would like to have diverse, "walkable" spaces in their neighborhoods. To support this statement, I will share my observations on three suburban residential developments of two different types.

Fiddlers Green is a new suburban development in Framingham, Massachusetts. It lacks any kind of public open space. The lots are relatively big and the single family detached house is the exclusive house type. The streets are over twenty-five feet wide, although the traffic is very slow. No sidewalks are provided. There are no facilities or services within walking distance. Nevertheless, in a cold windy afternoon some of the
residents were out for a walk. They were strolling on the pavement: young couples pushing baby carriages, single people, and elderly couples. They were not "going" anywhere, because there was nowhere to go to. Most pointed out that they just "wanted to go around the neighborhood".

Two other examples are the classic cases of the New Towns from the 60s: Reston, Virginia and Columbia, Maryland. In both developments special efforts have been made in the original plan to provide accommodations for the pedestrian and to encourage community life. Unfortunately, fewer efforts have been made to provide attractive environment for pedestrian use. The result is that these developments are not so much different than the typical modern suburbs, condemned by architects and planners. The residents go with their cars to the grocery store, to the community center, to the sport club, or to the mall. Although some of these facilities have been thoughtfully designed in the centers the neighborhoods, often within walking distance from the residential areas, they are physically unapproachable for a pedestrian. Local highways, changes of the terrain, lakes, forests, or valleys lie across the way from homes to service areas. In the best cases pathways are built, connecting some of the dwellings and the different local facilities. These paths are seldom used, because of fear of crime. Thus the opportunities for walking and socializing are brought to a minimum. In the same time, in both Reston and Columbia, around the beautiful lakes and in other scenic environments are built "walking paths"--narrow strips winding in the woods, usually used for jogging and exercising.

The benefits of such accommodations are obvious, but they are just another expression of the separation of functions in our world and of the careful assignment of proper places for each activity. They do not replace in any way areas for pedestrian use, attractive for a large number of people, with an atmosphere which encourages social interaction. At present such areas are almost non existent in the American suburb. I have tried to prove the necessity of introducing this kind of environment in the suburbs. In Part II of this thesis I will discuss some aspects of the design of walkable suburban public open spaces.
PART II
RECOMMENDATIONS FOR THE DESIGN OF
PUBLIC OPEN SPACE IN THE SUBURBS

"It is difficult to design a space that will not attract people.
What is remarkable is how often this has been accomplished"

William Whyte ("City", p. 109)
Chapter 4:
Functional organization

A good public space is a place which draws people together. The most favorite open spaces in the city are lively, animated with people walking, hurrying, shopping, sitting, laughing, chatting, or simply watching the world passing by. Such places inspire a sense of belonging, of being a part of a community of users. The possibilities for spontaneous social interaction is in the air, social contacts are more welcomed than in most other areas. Are these places a prerogative of the city? Is it possible to create public open places in the residential parts of the American suburbs which will become centers of community life for the neighborhoods? What characteristics of the design of such places will influence the social environment that they provide? These are the questions that I will try to answer in the second part of this thesis.

The functional organization of a public space has an important impact on its character. In this chapter I will attempt to trace the connection between the functions and activities that a public space provides and the number of people that it attracts.

The proposed principles of functional organization for suburban public centers are a result of an analysis of the types of outdoor activities which occur in public open places, a review of studies on the use of urban public places, and observations and interviews on the potential use of suburban public open spaces.
Types of outdoors activities in public spaces

Outdoor activities in public spaces can be categorized by many criteria: frequency, duration, time of the day when they occur, number of people involved, and so on. For the purposes of this paper, I will use a very generalized classification, using as a criterion only the presence or lack of necessity of undertaking such activity. In these terms, outdoor activities in public spaces can be categorized in two groups: necessary and optional activities.

**Necessary and optional activities**

Necessary activities are more or less unavoidable and usually comprise everyday tasks: going to work, shopping, or running errands. People become involved in such activities because of need, rather than as a matter choice. The quality of outdoor space has little influence on them. They occur with approximately the same frequency. In some cases, if a certain activity can be equally accomplished in different settings, preference is given to the space with better quality: a person might choose to walk to work on a street which he enjoys better, even if it is slightly longer than his usual route.

Optional activities depend on personal choice and will. This category includes such activities as going for a walk, sitting on a bench without practical reason, or chatting with a friend on the street. Although the frequency and nature of this type of outdoor activity depends on many features of society, like culture, traditions, and habits, they are influenced to a much higher degree by the quality of outdoor space. Location, provisions of various facilities, presence of other people, presence or absence of bums, greenery, water, cleanliness, safety are only some of the many qualities of a public space which determine its use.

Necessary activities occur at times and places where they are needed, with little influence from the quality of the physical environment. These are also the only
activities which take place in a public space of poor quality. An inviting and attractive open space, on the other hand, induces a broad range of optional activities. In fact, many of these activities occur spontaneously, without being planned in advance, and often are included into specific necessary activities: a necessary trip to the grocery store can involve a short rest, a cup of coffee, or a chat with a neighbor, if the outdoor space is inviting for such actions.

Social activities
Social activities can be generally defined as activities depending on or connected with other people. These include incidental contacts, personal relationships, group meetings, or communal activities, which do not necessarily require direct contact and can take place in private as well as public buildings and places. For the purposes of my work, and to avoid repetition, I will use the term "social activities" as activities which depend on the presence of others in public open spaces. In these terms, social activities are directly connected with the two types of outdoor activities, discussed above. Since they occur as a consequence of people sharing the same place in the same time, the frequency of necessary and optional activities at a certain place would influence the possibilities for social interaction.

A study of street life in residential neighborhoods in Melbourne, Australia, carried by Jan Gehl in 1976, shows the interdependence between the number of outdoor activities and frequency of interactions. The chart shown on fig. 10 plots the relationship between the number of
outdoor activities and frequency of interaction. The ratio of 3:1 (numbers of outdoor activities observed during a given period of time to numbers of social contacts which occurred during the same period) remains relatively stable.

We can conclude from the discussion so far that a public open space which is used frequently for necessary activities and is attractive for optional outdoor activities, has a higher potential to generate and encourage social interaction. In this context, the quality of social life in a given neighborhood can be affected by providing, through planning and architectural design, opportunities for people to be in the same place, to meet, see, and hear other people.

**Outdoor activities in the suburban context**

Necessary outdoor social activities are much more easily observed in the city. In the suburban neighborhood there are little possibilities for people to meet in public spaces. There is seldom a need to walk anywhere, since the typical suburban organization is based on the use of the car. This does not necessarily mean that there are no functional needs of the residents of suburbia which can be at least equally satisfied if the required facilities were provided in the suburban neighborhood, within walking distance for many of the residents. This, along with careful architectural design, will broaden the range of possible purposeful (necessary) outdoor activities and give more opportunities for optional activities and the resultant social contacts.
Uses of urban public open spaces

Suburban open spaces have been a subject of considerably fewer studies than public spaces in the city. Although many factors affecting the use of public spaces in the suburban environment are different from the ones in the city, I believe that some parallels can be drawn. The most apparent common feature between them is that an important measure of success is how many potential users actually use the space. From this prospective it will be useful to look at some of the research on the use of urban public open spaces.

The urban plazas
A study by the Department of Landscape Architecture at the University of Illinois at Champaign–Urbana in 1975 of the First National Bank Plaza in Chicago shows the typical activities of the users (Table 1). Although the predominant users of the space were white-collar office workers, during the late afternoon the proportion of office workers and shoppers was roughly equal. The users were asked what they liked about the plaza. The results are shown in Table 2.

<table>
<thead>
<tr>
<th>Table 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking through</td>
<td>52%</td>
</tr>
<tr>
<td>Walking and watching</td>
<td>7</td>
</tr>
<tr>
<td>Walking and talking</td>
<td>6</td>
</tr>
<tr>
<td>All talking</td>
<td>65%</td>
</tr>
<tr>
<td>Stand and watch</td>
<td>11</td>
</tr>
<tr>
<td>Stand and talk</td>
<td>4</td>
</tr>
<tr>
<td>Stand only</td>
<td>1</td>
</tr>
<tr>
<td>All standing</td>
<td>16</td>
</tr>
<tr>
<td>Sit and watch</td>
<td>6</td>
</tr>
<tr>
<td>Sit and talk</td>
<td>5</td>
</tr>
<tr>
<td>Sit and eat</td>
<td>2</td>
</tr>
<tr>
<td>Sit and read</td>
<td>2</td>
</tr>
<tr>
<td>Sit and _____</td>
<td>1</td>
</tr>
<tr>
<td>All sitting</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 2

<table>
<thead>
<tr>
<th>What do you like?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment</td>
<td>26%</td>
</tr>
<tr>
<td>Fountain</td>
<td>19</td>
</tr>
<tr>
<td>Watching people</td>
<td>12</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>11</td>
</tr>
<tr>
<td>Opposite sex</td>
<td>10</td>
</tr>
<tr>
<td>Isolation</td>
<td>8</td>
</tr>
<tr>
<td>Appearance</td>
<td>6</td>
</tr>
<tr>
<td>Sun</td>
<td>5</td>
</tr>
<tr>
<td>Location</td>
<td>3</td>
</tr>
<tr>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

A study of three plazas and one small urban park in Sydney, Australia, conducted by Purcell and Thorne in 1976, showed that 62% of the respondents were using the open spaces primarily for relaxation, 22% for eating, and 10% for walking. The majority of these users wished to have more outdoor restaurants, coffee shops, and refreshment stalls; an open air theater; concerts; and more seating.

The findings of these and other evaluations of downtown urban plazas (in Seattle, 1979, three in San Francisco, 1984, and sixteen in New York, 1988) can be summarized as follows:

--about 50% of their users work in the surrounding office buildings;

--men tend to predominate in upfront, on-display locations in urban plazas, while women tend to prefer backstage, quiet, and natural settings;

--women are more likely to use public open spaces adjacent to retail stores;

--passive or active activities are predominant in different plazas, depending on the location and character of the space;

--the strongest factors which attract people to a particular place are the presence of other people, and the amount of sittable space (these factors were found to have much stronger influence on the use of space than the aesthetics, the sun, the amount, or the shape of a place)

--walking, sitting, eating, and reading are the activities which most often take place.

Street activities in the city

The activities which take place on a busy street in the city are innumerable. It will impossible to list all things that
people have to or like to do on the sidewalks. Yet, not all city streets are equally animated. The activities of people on a sidewalk are closely related to the functions that the facilities on its side provide. Here I will cite one of the most fervent explorers of the city--William Whyte--on the importance that he puts on the functional diversity of the sidewalks of the city.

"Context is all important. How a walkway works depends very much on what is on either side of it." (Whyte, 1988, p.77) To answer the question why do people are particularly attracted by certain streets, Whyte (1988) uses the case study of a four block stretch of Lexington Avenue in New York, from Fifty-seventh to Sixty-first street. Diversity of functions was, according to Whyte, one of the main reasons why people liked coming back to this street: "On one side are the office buildings of the central business district; on the other, the apartment buildings and the brownstones of the residential East Side. In between are department stores, savings banks, restaurants, bars, small shops. It is highly local, and a succession of serving facilities such as cleaners, liquor stores, and delicatessens keeps repeating itself." (Whyte, 1988, p.80). Other factors, like busy commercial activities on the second level, interesting opportunities for window shopping, street vendors, and many facilities providing food and eating space outside, contributed to the rich diversity of functions and attracted residents and outsiders at all times. The possibilities for walking, shopping, and eating in a street where these facilities are mixed and arranged in a mishmashed manner makes such a street a favorite place to be.
Principles of functional organization of suburban public open spaces

The previous discussion about the use of plazas and sidewalks in the city can seem not very relevant to the subject of this chapter—the functional organization of suburban public open spaces. As I have pointed out earlier, the main reason for the short review of some studies on urban public places was to identify what people tend to do most in these places. An analysis of the results of studies of public behavior in the public space in the city can give us only guidelines about the activities that can be expected in a suburban public open space. The suburban environment differs in too many ways from the urban situation to make possible a direct import of types of urban public spaces in the suburbs. Any suburban public centers will lack many of the qualities of the traditional city center. "Urbanity is not something that can be lacquered on; it is the quality produced by the great concentrations of diverse functions and a huge market to support the diversity" (Whyte, 1968, p.198). The low-densities of suburbia make impossible the recreation of the functional and social diversity of the public spaces of the city.

The "New Town" plans of the 1960s with the concept of self-containment, were an attempt to bring urban qualities into the suburban center. The typical suburban shopping center was replaced in the shiny brochures by highly "urbane" centers, with a full range of cultural activities, specialty shops, second-hand bookstores, and sidewalks cafes. The results were different: neither the diversity, nor the intensity and density of the urban center were ever achieved. As many authors (mention some) stress in their studies of the new towns, it is impossible to have the good qualities of the city center without the bad ones—crowding, crime, poverty, and so on.

I think that the question is not how to recreate an urban environment and urban public life in the suburbs, but how to create a suburban center which can bring diversity,
character, and possibilities for social interaction in the suburbs.

**Defining the users**
In the suburban neighborhood the rich mixture of users of city public spaces (office workers, citizens who live nearby, shoppers, tourists, or "undesirables") cannot be expected. The potential users of the suburban public open space are the residents of the neighborhood, the people employed in the local stores and facilities, and, in some cases, the employees from the office or the industrial parks in the vicinity.

It is important to determine the social composition of the suburban neighborhood (or estimate if it is a new development), before proposing particular functions of the public open space. A career oriented childless couple has different functional needs than a family with children, teenagers will look for different activities than toddlers, a retired couple will need different facilities than single people. Public spaces in neighborhoods with population which is homogenous in age, family status, and life styles should provide functions for this particular social group (assuming that it is desirable to maintain or encourage this homogeneity). The suburban public space is where most of these functional needs should be accommodated. Only in this way can the maximum possible concentration of people and activities be achieved, which will increase the opportunities for social contacts.

**Introducing needed functions**
As William Whyte points out in his detailed study of New York's plazas, "supply creates demand. A good new place builds a new constituency. It gets people into new habits and induces them to use new paths" (Whyte, 1988, p.105) He uses the example of the First National Bank Plaza in Chicago, which in few months "changed the midday way of life for thousands of office workers".

As I have pointed out in the beginning of this chapter, necessary activities occur, to some extent, independently of the physical environment. In the same time, a place which provides necessary functions for its potential users
will inevitably attract people and even modify existing habits and life-styles. Therefore, it is essential to define what functions are mostly needed in a given neighborhood. Creating the necessary facilities to accommodate these needs in the area of the public space will attract a steady flow of users, who may further engage in optional and social activities.

During the interviews that I conducted in Fiddler's Green, Massachusetts in 1991 the residents expressed their needs for a newspaper stand and an automatic teller machine within walking distance in the neighborhood, as well as a small cafeteria. Several families with small children were dissatisfied by the lack of child care center and playgrounds.

The interviews in Carlisle, Massachusetts in 1991 revealed quite different needs: with an active amateur theater group, including fifteen members of the community, the residents would like to have a place for rehearsals and performances in the open air. "A child-care center would have been really nice twenty years ago", said a women, "but now the children are grown up." A resident stated: "We have a lot of community activities here: we read poetry, have a theater group, even raise animals. Well, this, and the blueberry picking in spring happened more often when the children were around. But we meet in each others' houses, we take turns".

Clustering activities
The clustering of facilities which provide necessary and optional functions around a plaza or along a commercial street will provoke higher concentrations of people and increase the possibilities for social activities. There are few examples of existing suburbs which provide concentrations of diverse functions. One the other hand, the centers of the traditional American small towns of the near past, unpretentiously and without elaborate planning, managed to provide a variety of functions, even on a small scale. Now new suburban developments have emerged around these towns, encompassing many times their original population and size. The old town centers, though, often remain a focus of neighborhood community life.
In the town of Carlisle, Massachusetts, the existing facilities consist of a small grocery store, a library, two churches, a bakery, and a post office, a police station, a dentist, and some offices—a modest range of functions, which can hardly satisfy the contemporary needs of residents of the sprawling suburban development around the town. Nobody really relies on the small town center for weekly grocery shopping or academic library research. But residents from areas 10 miles away often drive to the old center for, seemingly, no practical reason. "I like going to the post office because you always meet some of the neighbors there", said during an interview a resident of one of the new suburban neighborhoods, "I can buy my envelopes and stamps at the mall, but I always do it in our post office". All of the facilities at Carlisle are concentrated in the center: the library is about 200 ft away from the grocery store, and the post office is about 500 ft from the these two. On the weekends one almost feels 40 years back in time: people walk slowly on the narrow sidewalks, chatting on the steps of the library, or carrying freshly baked bread. The "greens", a small patch of grass in the center, is colorful with people sitting, lying, or reading in the sun.

On the 4th of July the town parade really crowds the streets of the small town.

Such an idyllic atmosphere is hardly true for all of the traditional towns throughout the country. In many cases, like in the town of Framingham, the old main street is now a busy thoroughfare, cutting right through the center of the town. The small stores, not able to survive the competition of the shopping mall, often disappear. The old commercial buildings or storehouses look dirty and abandoned. On the other hand, many old towns not only remain alive, but are now centers of public life for much larger communities. Some qualities of these places are still attractive, even for people who have chosen to live in a suburban environment.

Trying to rebuilt contemporary residential suburbia in the manner of the traditional American small town is impossible. Taking literally historical types of built environments and pasting them over new life-styles and new economic and social realities is an artificial and unrealistic approach. On the other hand, in trying to improve the quality of the way we live in the suburbs, we
can draw some lessons from the familiar old town center. One of them is the clustering of small scale diverse functions around a central public space.

**Providing diverse functions**
An empty large space, providing few or no activities has little chance to become a focal point of social interaction in the suburban neighborhood. In many cases the provision of a wide variety of services, commercial, cultural, and entertainment facilities, in a suburban residential development is not economically feasible. On the other hand, the more activities a public space makes possible, the more people it is going to attract. This notion supports an argument that any services that can be economically justified should be introduced and encouraged in order both to attract users and to provide for community needs. The range of alternatives may include the provision of inexpensive facilities which will make possible a range of different activities: a small pleasant area providing comfortable benches and tables can be used to share a meal with a friend, or read a book in the open. Even commercial facilities of a small scale, like a local bakery, a newsstand, or a hot-dog stand will generate a flow of residents from the neighborhood.

The public open space in the Town Center of Columbia, Maryland allows a range of public activities. It is situated close to Lake Kittamaqundi and offers a nice view towards the water. The landscaping provides a natural amphitheater with a place where outdoor performances are possible.

Fig. 5. Public open space in the Town Center of Columbia, Maryland.
A pier with small boat moorings attracts many residents in the summer time. Concise, but tasteful architectural design of fences, rails, and lights makes the place pleasantly attractive, without artificial pomposity. A pavilion and groups of benches provide opportunities for resting. Trees and planting bring freshness and welcomed shadows in the hot summer days. A shortcoming of the design is the relatively large scale of the space. Although residents stated during interviews that the place is animated in the warm months and concerts and large community events some times take place, it seemed empty and deserted during the days of my observation in December.

Fig. 6 and 7. Town Center, Columbia, Maryland.
Groups of benches provide opportunities for resting.
Fig. 8. Town Center, Columbia, Maryland.
Trees and a pavilion offer welcome shadows in the hot summer days.

Fig. 9. Town Center, Columbia, Maryland
A pier with small boat moorings attracts many residents in the warm season. Nevertheless, the oversized space seemed too empty in December.
The surrounding area provides diverse public and commercial facilities. A movie theater (Columbia Cinemas), a hotel with restaurant (Columbia Inn), a library of regional scale (Howard County Central Library), a post office, and a regional shopping mall are within 1/4 of a mile from the public space. Unfortunately, no effort was made to assemble these facilities in a complex with each other and with the open space. All service and commercial buildings turn their backs to the open space, facing vast parking lots and local streets. The distances are too long for walking, and pedestrian movement is further discouraged by the topography of the place and the vehicular traffic. Little Patuxent Parkway, a busy thoroughfare separates the shopping mall from the public facilities. A different organization with the public open space as a unifying center of closely located facilities would have attracted users with different interests in the area and increase the use of the public space, creating many opportunities for social contacts.

Fig. 10. Map, showing the isolation of the open public space at the Town Center from all existing facilities.
The plan for Golden, Colorado by Peter Calthorpe is an example in which the central public space provides a rich variety of services and facilities. It implements the idea of creating a public space with a mix of housing, workplace, recreation, services, food, and entertainment; a mix which will produce an "economic, psychological, and biological vitality generally missing from our single-use residential subdivisions" (Van der Ryn and Calthorpe, 1986). A pedestrian spine crosses the residential area in the middle. High concentrations of various functions line its edges. The services along the public space range from a regional scale to accommodating the particular needs of the residential neighborhoods. At the north end of this main street is located a regional shopping area, which includes department stores, movie theaters, a hotel, and a restaurant. These facilities rely on users both from the surrounding office and industrial parks and suburban housing developments, as well as from the planned community. To the south the character of the services changes: local stores, a post office, a bank, a child-care center, a restaurant, and a cafeteria meet the everyday needs of the members of the community. A multi-functional school incorporates public library, meeting rooms, and recreational areas. Further south the street provides office and store place in combination with housing for local self-employed residents. The street ends at a large commercial greenhouse.
Fig. 12. A plan of the pedestrian spine with suggested functions

Fig. 13. Sections through the public center.
The wide variety of functions and facilities will attract many residents of the local and surrounding communities, as well as employees working in the vicinity. Connected at many places to adjacent non-commercial open spaces, the main street of Golden offers many opportunities for community activities and social interaction.

The proposal is reminiscent of the plans of the New Towns of the 1960s with its scale and self-sufficiency, although, as the author states, it is less isolated and more physically, socially, and ecologically coherent than today’s suburb. It can be easily criticized, as were the New Towns, of being too carefully planned, too artificial and self-contained. With its connections, though, to the adjacent areas, special ecological programs, increased housing densities, and provision of functionally diverse public space, it is a modern attempt to enhance the quality of life in the suburban environment. In the same time, considering the large scale of interventions and non-traditional proposals, the ambitious program of the project is unlikely to be widely replicated throughout the country.
Design guidelines for functional organization of public open spaces in residential suburban neighborhoods

The objective of this section is to define the main problems of the functional organization of suburban public open spaces and to outline possible solutions.

To plan the most effective functional organization of a suburban public center, several factors have to be considered. Planners must determine the characteristics of the prospective or existing population, identify their needs, and study the potentials of different functions to attract users in the specific neighborhood. In this section I am proposing several considerations, concerning the functional organization of suburban public center.

Defining the users

One of the first steps in the design of a suburban public open space is to define its potential users. All other elements of the design process depend on this. To be used to its fullest capacity, the public space must satisfy the particular interests and needs of the residents. Some of the fundamental questions concerning the population are:

- What is the social composition of the neighborhood in terms of: age group, family status, range of income, interests, and life-styles.
- Is the space going to be used exclusively by community residents, or will it also attract outside users: residents of surrounding suburban residential developments and employees of office and industrial parks from the vicinity?
- What is the estimated number of users for each facility or activity proposed in the design?
Accommodating the specific needs of different population groups

The nature of sub-groups within the community must be considered. A sub-group of elderly retired people will have different needs than the teenage children or the 30-something adults with young children. At the same time, members of these groups will co-mingle and interact in spaces and at facilities in which they have common or co-located interests. The center of the community must provide for this dichotomy of differences and commonality between these groups. If these objectives are met, the public spaces will attract a maximum of users and become a socially diverse and lively center of community life. Some of the implications of this approach are as follows:

- Providing facilities in the neighborhoods which accommodate specific needs of smaller population groups will strengthen the social links between their users.
- The clustering of these facilities around a public square, or along a main street, will encourage the mix of different population groups and the social diversity of the public open space.
- Attracting people with different needs will increase the number of users and, consequently, the opportunities for social interaction.
- At the same time, the facilities, serving a particular population group, should be organized in a way in which the activities in one place will not disturb these in another.

![Diagram](image)

Different population groups have different interest which often interfere with one another. Creating subspaces of a common public space is a possible solution.
For example:
Providing a playground, as part of the central public space, will accommodate the needs of parents who use the grocery store, the post office, or any of the other facilities in the area. It is likely to attract some of the senior residents of the neighborhood as well, since continuity of generations is a basic human need and occurs whenever the circumstances make it possible (see Chapter 3, p.12). On the other hand, while bringing children's laughter and joy into the atmosphere of the public space, a playground can also be disturbing for other users. Hence, a playground should be close to the public center, but relatively separated from it. The design should also provide visibility from the adjacent facilities, and safety from traffic.

Fig. 15  SUBSPACES OF A CENTRAL PUBLIC SPACE WITH PHYSICAL CONNECTIONS AND SPATIAL PRIVACY
Introducing needed functions
A place which provides necessary functions for the residents of the neighborhood will inevitably attract users. Since the presence of people attracts other people, it is likely that a nucleus of frequent users will attract a larger group of residents, using the public space for optional and social activities. Creating a public space which meets the specific needs of a given neighborhood is a prerequisite for the design of a center of community life. In this context, the following steps are important in the design process:

- Determine the range of specific functional needs which are not presently satisfied within the community.
- Define the commercial and service needs which are particularly impeded by requiring car trips to locations outside of the community.
- Propose facilities which accommodate the particular needs of the residents.
- Study the economical feasibility of the proposed commercial, cultural, and service facilities.

For example:
A relatively constant volume and character of customers will be attracted by commercial facilities, especially those which offer goods and services with everyday use. Small scales of these facilities are preferable, for economic as well as social reasons: very much like the convenience stores in the city, they can increase the sense of community between users and make personal contacts more probable. Organizing such elements as part of a public open space, where other optional activities will be possible (walk, eat, sit, watch, or play), will increase the use of the public space and the opportunities for social contacts.

Maximizing the diversity of functions
The number of people that a public place attracts is related to the variety of functions which it provides. When the goal is to achieve a maximum of users of the common areas and to provide a lively and animated center of community life, an attempt should be made to provide as much diversity of facilities and services as can be economically justified. The range of possibilities
can be divided in several categories:

- Retail facilities: grocery store, pharmacy, gardening, utilities, drugstore.
- Serving facilities: bank, post office, barber shop, shoe-repair, local offices.
- Entertainment facilities: restaurant, cafeteria, local pub, video game arcade.
- Cultural facilities: library, theater and special event venue, movie theater.
- Communal facilities: meeting rooms, clubs for different interests, performance space.
- Opportunities for resting: benches, outdoor chairs, space for sunbathing.

These examples certainly cover only small part of possible activities. Specific decisions depend on the particular situation in the neighborhood: population size, needs, interests, traditions, climate, and economical feasibility. The planner should consider that the specific identify of commercial establishments is likely to change over time. Small businesses will come and go in spaces provided for them.

**Concentrating facilities**

Concentrating facilities, which provide necessary and optional functions, will provoke higher concentrations of people and increase the possibilities for social activities. Higher densities of pedestrian traffic, increased user volume, and greater possibilities for social contact between neighbors are more likely if facilities which provide both necessary and optional functions are spatially concentrated. If activities and people are assembled, individual events often stimulate one another. Participants in a situation have the opportunity to experience and participate in other events. Some recommendations for the concentration of facilities, and consequently, of people and activities are discussed in the following paragraphs.

- Two possibilities of spatial distribution of facilities, which allows high concentrations of people and activities, are the arrangement of functions around a central public space, or along a local main street. Traditional small towns of the near past provide many examples of simple and compact organizations of these types.
• In the attempt to concentrate people and activities it is important to minimize the distances between the facilities which a public space provides.

• Another dimension is visibility—the possibility to see other people and courses of events. Gehl (1987) defines the following ranges of visibility: at 1/2 to one kilometer, depending on background, lighting, one can perceive that there are other people; at approximately 100 meters, figures become human individuals (this range is called by Gehl social field of vision); in a range of 20 to 30 meters personal characteristics, facial expressions and emotions can be observed. Personal contacts occur at a much shorter distance: 1 to 3 meters. These dimensions can be useful in estimating the levels of visibility of the public space.

• People and activities can be assembled when individual buildings, providing facilities and services, are planned so that distances for pedestrian traffic and sensory experiences are as short as possible.

Fig. 16
• The orientation of entrances of facilities and dwellings also affects the concentration of people and activities. Higher concentrations occur when the entrances overlook a common public space, rather than being oriented away from one another.

• Providing deep and narrow lots for the facilities around a public space will shorten the distances between entrances and will avoid "holes" and empty spaces in the area of the public center. Such approach will result in more interesting and lively suburban public spaces.
- An important consideration is the ability of the users to observe events and other people in all sides of a public space.
- Consequently, oversizing the scale of the public space, around which the facilities are placed, will result in dispersion of people and activities.
- A main street or a square should be dimensioned in relation to the range of human senses and the number of expected users. A width of 3 to 4 meters for a pedestrian street accommodates a pedestrian traffic of forty to fifty pedestrians per minute, and allows good visibility of both sides.
- When a central public space should accommodate automobile traffic, a minimum pavement width of 7 meters for a two way movement should be attempted.
- In situations when an existing suburban street (typically over 20 meters wide) should be transformed into a local main street for the neighborhood, architectural details and planting can reduce visually the scale of the space. Lines of trees, fences, commercial facades extended on the sidewalks, and partial coverage are only some of the wide range of possibilities.

Fig. 19. Suburban street in Toronto, Ontario. The width of 24 meters (72 ft.) creates an empty field between the houses. High degree of dispersal of people and activities, inhibiting social interaction.

Fig. 20. Access street in housing project in Copenhagen. The width of 4 meters (12 ft.) permits easy visibility and participation.
Chapter 5: Location

Location is one of the major factors which determine the success of a public space. The presence of people is what brings public life and social interaction into a public space and the role of location, in this respect, is important. Location is often the decisive characteristic which determines if a public space will be lively with people or remain a carefully designed place which looks good only in architectural magazines, but is unpopular and even deserted in practice. "Given a fine location, it is difficult to design a space that will not attract people" (Whyte, 1988).

Location of urban public spaces

The best locations are those which attract a variety of users. This is true about urban, as well as suburban public spaces, since they both aim to bring as many people together as possible. A good public space is a place which draws people: "What attracts people most is other people", writes Whyte after two years of observations of public spaces in New York. Consequently, such places should be located where the density of pedestrian flows are the highest.

Whyte (1988) underlines clearly that the most desirable location of public place is in the heart of downtown: the more crowded an area is, the more successful a public place will be. Further he suggests locations where concentrations of people are high: on major avenues or attractive side streets, close to bus stops or subway stations, and which, consequently, are among the best for the creation of public spaces.
The position of a public space in relation to the block can also influence its character. A public place located on the corner of two streets of approximately the same grade will have a high potential of becoming an active meeting place, a place to pass through and a place to watch passersby. A place located at the corner of streets of considerably different grade will not be used as a passing through space and will not generate so much activity. A mid-block location is more likely to become a quieter space, where passive activities will be predominant (Whyte, 1988 and Marcus, 1990).

Location of suburban public open spaces

Studies of urban public spaces can be useful only partially in the design of suburban public places. When making a decision about the location of a public open space in a suburban neighborhood, the general aim to choose a location which will attract a maximum of users is, of course, still valid. On the other hand, one should be aware of the differences of a suburban, compared to an urban environment. The low density of suburban developments and the related exclusive use of the automobile as a mode of transportation, result in an incomparably lower pedestrian activity in the suburbs. Taking these realities in consideration, in this section I will discuss the capacity of the location of a suburban open space to attract potential users.

Pedestrian flows
One of the most important differences in a suburban situation is the absence of major flows of pedestrians, so typical for the city. In fact, most often there are very few pedestrians on the suburban streets. It is still important, in any given situation, to analyze any existing pedestrian activity and to coordinate the location of a public center in relation to it. It is also essential to evaluate the potential of any prospective location for generating new pedestrian activities.
The importance of pedestrian accessibility

While the exclusively pedestrian accessibility and use of an urban public space is usually assumed, in a suburban environment such a presumption will be superfluous. One of the first decisions which have to be made in the design of a suburban public open space is whether it will be within walking distance from the residential areas or close to it but accessible only by car. For many, familiar with the present organization and lifestyle in the suburbs, this may not seem like a very significant issue—after all, suburbanites rely on their automobiles for everything else: from taking the children to school and going to work, to doing grocery shopping and seeking entertainment in the mall or the city.

An example of this type of organization is the village center of Hickory Ridge, one of the neighborhoods in Columbia, Maryland. The village center offers a grocery store, a branch of the Citizens Bank of Maryland, a post office, a Gap store, one restaurant, two cafeterias, and a video game arcade. The architectural forms are simple and clear. The scale is unobtrusive and human.

Fig. 21 and 22. Village center of Hickory Ridge, Columbia, Maryland.
The spine of the complex is a short pedestrian street which is flanked with benches, trees, pots of greenery, and flower beds. A small fountain marks the center. Great attention has been paid to architectural details, lights, signs, and paving. At first glance, the village center seemed like a public place which would be full of people, shopping, walking through, or sitting; a place which would be lively with social contacts, a center of community life for the neighborhood. Unfortunately, during the three days of my observation, I noticed little activity on the pleasantly designed pedestrian street. The mostly used facilities were the grocery store, the restaurant and the game arcade. The open space seemed empty, especially in the late afternoons, when the bank and the stores were closed, and most of the shopping for groceries was accomplished. The most curious aspect of the center was not the architectural details, but the location. It was an island in a parking lot sea!

Fig. 23 and 24. Village center of Hickory Ridge, Columbia, Maryland.
The center is situated next to the village, but outside from it. The location is adjacent to the area with the highest residential densities of the village, but is separated by wide thoroughfares from it: Cedar Road to the west, and Freetown Road to the east. It is almost impossible, even for a determined enthusiastic resident, to walk from his home to the village center. Even the bicycle paths, that Columbia prides itself with, do not go to the village center of Hickory Ridge. There are three churches and three schools in the neighborhood, but the center is nowhere nearby. Consequently, the village center becomes a miniature version of a suburban shopping mall: an isolated island. The users have to come intentionally, to satisfy a particular need--have a meal, get a bank service, or do the weekly grocery shopping. The place is not on the way to anywhere, the pedestrian street connects two vast parking lots. Residents can only visit by car. Even teenagers have to rely on parents to be driven to the video games. The attractive pedestrian street with the multitude of functions seems artificial and out of place.

Fig. 25. Map showing the isolation of the village center of the surrounding neighborhoods
The careful architectural design accomplishes its goals only to some extent. Some of the residents said, during an interview, that in the warm seasons the place is much livelier. "We are glad to have it", said a middle aged woman, "it is the most pleasant village center in Columbia." While this testimony was encouraging, it is difficult to imagine any casual visitation to the place. Only the purposeful shoppers would go to the trouble to get in their cars and go there. Although the center is surrounded by neighborhoods, they are outside of convenient walking distance.

**Higher density housing in the area of the public center**

It is unreasonable to believe that it is possible to create a public space in the suburbs within walking distance from all the territory that it serves. In "People Places" Clare Cooper Marcus indicates nine hundred feet as the maximum distance that most people will walk to a downtown open space in San Francisco. Whyte (1988) recommends a three blocks as the effective radius for downtown plazas: his study of sixteen New York plazas showed that 80% of the users of a plaza walked from a place within this area. If we accept these parameters, and take into consideration the typical densities in a suburban residential area, we will have to design two to five public centers for each neighborhood--an economical and social absurdity. Increasing densities in the suburbs would be a solution, but this topic extends beyond the scope of this thesis. Some intermediate solutions may be possible.

Concentrating higher density housing types in the area of the public center in the suburban neighborhood is one of these options. Most of the new towns of the 1960s include alternatives to the single-family detached house. Sociological studies (Masotti and Hadden, 1978, Goering and Rogowski, 1978, Abbott, 1981, Kelly, 1989) have shown that the demand for higher density suburban homes has increased during the last ten years. If raising the density of suburbia in general is still a subject of theoretical discussions, condominiums are already part of many suburban developments. I suggest that suburban public centers should be designed close to existing housing projects with higher densities, or that such
projects should be proposed near future public spaces. Locating a public open space within walking distance from residential developments with high density of population will provide a more steady flow of users. Making such spaces visible and easily accessible for the residents of the adjacent dwelling will further increase the frequency of their use. A public open space with this location will not be an island of artificial publicness, but will become an integral part of the community.

As studies of urban spaces have shown, the presence of people attracts other people (Whyte, 1988). A public place frequently used by the residents living within walking distance will not remain neglected for long by the inhabitants who live in the neighborhood, but will tend to drive to it. Convenient and sufficient parking space should be provided, although avoiding vast fields of parking lots is recommended, since they can easily present a strong visual and functional obstruction for the integration of the public space in the suburb.

Particular economic and physical conditions will seldom allow the design of a whole community as a high-density residential area, with a broad range of services and facilities, and a local transportation system which is based primarily on pedestrian movement. On the other hand, attempts to incorporate higher density housing in the design of suburban public center, to provide the maximum variety of economically feasible functions, and to facilitate pedestrian movement will result in the creation of rich and diverse public spaces and will increase the opportunities for spontaneous social interaction in the suburban neighborhoods.
The proposal for Golden, Colorado by Peter Calthorpe suggests the creation of a multi-functional public core with high-density housing types within walking distance, which would integrate a larger area of typical low-density housing developments. The site is located west of Denver and is surrounded by scattered, fastly expanding, low-density office, commercial, and housing suburban development. It is bordered by freeway I-70 and the Denver West Office Park to the north, and existing single-family residential housing to the south and east.

Fig. 26. Location of the site in the Denver metropolitan area

Fig. 27. The site is a large infill area within fast expanding suburban developments.
Fig. 28. The proposed plan for Golden
The proposed public space is organized as a pedestrian spine which will become the focus for community activities for the new development and the surrounding areas. For the core of his development Calthorpe suggests a linear configuration reinvented version of the traditional main street, lined with service, office, recreational, and cultural facilities. The project relies on users from an area larger than the proposed site, which makes possible to include services of regional scale, which cannot be economically supported by the community itself. At the same time the village and its public core will provide a focus and identity for the surrounding bedrooms communities.

Fig. 29. Golden, Colorado. An enclosed pedestrian spine replaces the traditional suburban strip and shopping mall.

Fig. 30. Golden, Colorado. Greenbelts connect at several places to the central public space.
Running through the middle of the site, the central pedestrian axis is within walking distance for all of the proposed new housing developments. This is made possible by the higher densities of the proposed housing. The plan offers a variety of housing sizes and configurations. The predominant housing type is two- and three-story townhouses. The density increases towards the main street with a change from 20-feet deep configurations in the lower density areas to a depth of 30 feet.

Although the village plan provides accommodations for automobile access to the residences, it encourages pedestrian and bicycle transportation. The rows of townhouses line pedestrian neighborhood streets which run perpendicularly to the central spine and flow into it. The vehicular transportation is isolated in streets, parallel to the row houses, which terminate before the main street. For each vehicular street there are two pedestrian streets and one green buffer zone.

Fig. 31. Diagram showing the isolation of automobile accesses and the flow of pedestrian paths into the central open space.

The pedestrian accessibility encourages more intense participation in the activities provided on the main street. The boundaries between the public central space and the local, semi-public residential streets are diffuse which further stimulates outdoor public life.
Another example of incorporating a regional shopping center into a local suburban center is the project of Andres Duany and Elizabeth Plater-Zyberk for Kentlands, Gaithersburg, Maryland. According to the authors, a series of designs were developed over a two-and-a-half year period in attempts to "hybridize this distinct and inflexible type with a traditional downtown" (Duany and Plater-Zyberk, 1991). The site covers 356 acres, surrounded by office parks, residential developments, and strip shopping centers. The plan offers 1600 dwelling units, 1 million sqf of office space, 1.2 million sqf commercial space, 2 churches, a post office, meeting house, elementary school, library, child care center, and recreational club house.
These facilities are spread over the four neighborhoods of the project and are located around squares. Such dispersal of functions provides, on one hand, identity for each neighborhood, but, on the other hand, increases the distances for the residents and the dispersion of people and activities, and will result consequently in limited social interactions.

The main town square is bordered by a church and four-story buildings which contain shops, offices and apartments. This concentration of higher density housing and diverse facilities around the center of the town will assure a more steady flow of users and will animate the public open space.

The town center is located on the east edge of the project, adjacent to the regional shopping center, which allows integration between the two commercial types. Situated between the town center and the tangential highway, the regional retail center permits both easy automobile accessibility for outside customers arriving by car, and short pedestrian links for the town residents. Perpendicular extensions of the town main street, lined with stores, lead to the three anchor stores and permit pedestrian access which avoids traversing of parking lots.

Fig. 33. The School district includes a elementary school, a church, a corner store, a child care center and a row of town houses.
Fig. 34. At the first stage of the proposal the anchor stores were attached to the main street, which allowed pedestrian access avoiding the traversing of parking lots.

Fig. 35. Due to requirements of the retail developer, a later stage of the proposal joins the shopping center to the town center only at the square.

Fig. 36. The final proposal, linking the anchor stores to the main street through pedestrian extensions.
An example for a centrally located public space, serving a smaller community is the project of Duany and Plater-Zyberk for a village near Annapolis. The plan includes 487 dwelling units, 80,000 sqf of commercial and office space, a retirement home, a meeting hall, a church, a post office, a library, and a cinema. The community is designed to serve members of all ages with special attention to the needs of senior citizens.

The local streets radiate from the center, which is marked by the meeting hall and surrounded by three-story housing units. The retirement home is located in close proximity. This configuration allows easy access to community activities for the residents and promotes higher concentrations of people in the area of the village center.

The size of the development is small and all of the houses are within 5 minute walking distance from the central space. Walking distances are further minimized by a system of pedestrian paths which cut through the blocks.

Fig. 37. Plan for a village near Annapolis.
Although the central location of the center presumes primary use of the facilities by the members of the community, an attempt is made to attract outside users: the existing road is diverted to run through the center of the village center, facilitating through traffic.

Most of the public buildings are located at local squares, providing space for social contacts. However, the sites reserved for institutional and commercial facilities are distributed throughout the village, as shows figure 39. Consequently, the opportunities for social activities is reduced, due to the spatial dispersal of people.

Fig. 38. The public buildings and facilities are scattered throughout the village.

Fig. 39. Neighborhood square in the village.

Fig. 40. The retirement home is situated in close proximity to the center.
Design guidelines for location of public open spaces in suburban neighborhoods

One of the major factors which will determine the success of a suburban public space is its location relative to the community plan. A good location for a public area is one which attracts a maximum of users. In this respect, the following approaches are suggested:

**Pedestrian accessibility**
- Determine any existing patterns of pedestrian activity and link a public open space and adjacent facilities to existing pedestrian flows.
- According to the specific situation, determine whether the space will be used exclusively by pedestrians or will also accommodate vehicular traffic.
- Choose a location for the suburban center which allows pedestrian accessibility for the residents. Applying this principle will avoid the occurrence of "no-man's land" between the residential areas and the central space and will prevent the public center from becoming an isolated island, surrounded by parking lots or other spaces which act as barriers.

Fig. 41 and 42.
- The design of public spaces within walking distance for all the residents is often impossible, given the common spread of low-density residential areas over large territories in the suburbs. In these cases, a solution may be the incorporation of higher-density housing as part of a suburban public center. Visibility and pedestrian accessibility for the residents of these housing units will provide a steady flow of users for the public space and will attract residents from other parts of the community.

- It is important to consider the distance that people are willing to walk to a certain facility. Whyte (1988) suggests that a distance of three-blocks is the effective radius for the use of downtown plazas. Marcus (1990) indicates 900ft. as the maximum distance that most people will walk to a downtown open space in San Francisco. Andres Duany and Elizabeth Plater-Zyberk accept the "5 minute walk", a distance of 1300ft., as a basic distance from the residential areas to a central public space in suburban neighborhoods. These recommendations, combined with consideration of the characteristics of the population of the specific neighborhood, can be used as a basis for determining the location of the public space.

Fig. 43.
Alternative locations and spatial organization

- **Central location**
  Locating a public area close to the physical center of the suburban development will provide shorter distances and easier pedestrian accessibility for more of the residents. A negative result of choosing a central location for the public space is the minimizing the flow of outside visitors. To a great extent, the users will be limited to members of the community. Given the low density of the typical suburban neighborhoods, it is unlikely to expect high concentrations of people and activities in the central area in this case. Consequently, there will be fewer opportunities for social interaction. The economic feasibility of many commercial and service facilities will be doubtful.

- An organization of this type will be appropriate for suburban neighborhoods with higher density of population or when the design of the suburban center suggests smaller scale and numbers of facilities. In this case, accepting the spatial form of a central square for the suburban public space will provide shorter distances and will allow pedestrian accessibility for larger number of residents. The character of the center will be more local and intimate.

Fig. 44.
A possible solution is to concentrate a maximum of functions in the area of the public space, which will bring people for different purposes in the same place.

Another option is the integration of higher density housing around the central square (smaller lots or apartment buildings), which will minimize the walking distance for their residents and will assure a steady flow of users.

Dispersal of functions throughout the neighborhood diminishes walking distances for some of the residents to individual facilities, but reduces opportunities for social interaction.

Fig. 45.
Fig. 46.
Edge location

Edge or perimeter locations for the public space may be used when the commercial enterprises must attract outside users in order to sustain their minimum customer volumes. A location within the limits of the community, but off its center, adjacent to a local thoroughfare or highway may serve this purpose. In this case, the location will provide easier automobile accessibility and larger commercial enterprises can be considered. This location will increase the attraction of outside users--employees from office and industrial parks in the vicinity, or residents of adjacent housing developments. The incorporation of facilities of regional scale will be economically feasible which might result in generating a larger number of users of the public center. A shortfall of such decision will be the increased walking distances for the local residents and the larger, more impersonal scale of the space. In some cases, the presence of too many "outsiders" in the suburban center might be perceived by the residents as threatening the safety of the neighborhood.
• **Linear organization**
  A compromise solution to these problems can be a linear spatial organization of the public space.
• Crossing the neighborhoods, such configuration allows short pedestrian distances for larger numbers of residents.
• Extending the linear suburban center to a near highway will provide easy automobile accessibility and visibility and will encourage the use by outside customers.
• A linear configuration of the central public space gives the opportunity to incorporate facilities of regional scale, while in the same time, preserving the local character of the space within the neighborhoods.
• Facilities of regional scale should be concentrated close to the highway or an existing commercial strip, while, towards the heart of the neighborhood, facilities of more local character should be provided.

Fig. 49.

A linear organization provides both automobile accessibility for the facilities of regional scale and short pedestrian links for the neighborhood. A disadvantage is the potential generation of too large numbers of outside users into the neighborhoods. /Might be perceived as threatening the safety by the residents/
Chapter 6: Conclusions

In the first part of this thesis I have explored the relationship between the present lack of public open spaces in the suburbs and the changes in society: privatization of public life, changes in life-styles, and changes in cultural values and attitudes. I have come to the conclusion that the present deficiency of these spaces does not reflect the actual needs of the residents of suburbia. Instead, it is the result of encouraging, through architecture and planning, existing trends of privatization in society, while neglecting other tendencies of increasing need for small scale neighborhood life and informal social interaction. My research has shown that the importance of accidental face-to-face social contacts has not been diminished or replaced by the new forms of public life made possible by telecommunications and other technologies. In the context of the present transformation of suburbia and the emergence of "edge cities", with the decreasing number of work trips to the city, it is even more important to provide opportunities for such social activity within the suburban neighborhoods. I have traced the potential of functionally diverse public open spaces to accommodate these needs and to enhance the social environment of the residential areas in suburbia.

The second part of my thesis concentrated on the ways in which public open spaces can be designed to function as centers of community life in the neighborhoods. The proposed guidelines can be used as a basis for the architectural design of such spaces. I have focused my attention on only two aspects of the physical organization of suburban public open spaces: their location and
functional organization. I believe that these two factors will affect to a great extent the future use of the space, the capacity of the space to attract local and outside users and to generate social interactions.

In order to achieve these goals, it is useful to be aware of the qualities of the suburban environment that are important for the residents at present. Creating a public space which will not correspond to the needs and desires of its future users will be purposeless.

One of the main reasons for people deciding to live in the suburbs are the better conditions that they provide for rearing children. Despite the present changes in family structures and the slowly increasing number of single people and childless couples, sociological studies show that a substantial portion of the time of the suburban residents is children oriented. A public space can provide many possibilities for supporting the parents in their responsibilities. Including child-care centers and playgrounds as part of the facilities provided in the area of the public center, will offer opportunities for the parents to take part in other activities taking place in the public space and to combine child-related duties with accomplishing everyday tasks. A public open space can also provide space for outdoor performances and festive activities in which both parents and children can participate. A place of this kind can present more opportunities for children to take part in community public life and to be exposed to a wider range of experiences.

Another important concern for the residents of the suburbs is the issue of safety. Escape from the crime and "danger" of the city was among the main reasons which people stated for their move to the suburbs. Strangers are often distrusted in the suburban neighborhoods. A public space which would attract large numbers of outside users can become unpopular for the local residents. A possible solution for this problem is the provision of relative spatial distinction of functions of regional and local scale.

Closeness to nature is also among the important qualities that the suburban environment provides. The design of a suburban public open space can support and even enhance the integration of the built forms of the
neighborhood with the natural environment. Planting and green spaces in the area of the public center will bring freshness and welcomed shadows for the users. Linking the public center to green open spaces is also an important consideration. A valuable approach is the integration of the main public space into a green system throughout the neighborhoods.

The preceding discussion has re-emphasized the notion that there are distinct qualities of suburban life that people are specifically interested in when they make their choice of residence for themselves and their families. The theme of this project has been to examine the potential role of public open space in satisfying some of the needs of suburban populations and in improving the social environment in the neighborhoods. It is therefore significant to understand that providing public open spaces should not be an exercise in pasting urban forms into the suburban fabric. The design of public open spaces in suburban communities should emphasize the unique qualities of the suburban environment that are valuable and which contribute to the well-being and satisfaction of its residents.
Bibliography:


Illustration sources:

All illustrations, unless otherwise indicated, are produced by the author.

Figure 1: From Dean, Andrea Oppenheimer. "New Town Downtown", *Architecture*, December 1991.


Figure 11, 12, 13, 26, 27, 28, 29, 30, 31: From Van de Ryn, Sim and Peter Calthorpe. "Sustainable Communities". San Francisco, CA: Sierra Club Books, 1986.