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Incorporating Neighborhood Social Patterns into Neighborhood Planning Models

Paul Duggan
Clemson University, pduggan@clemson.edu

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INCORPORATING NEIGHBOHOOD SOCIAL PATTERNS
INTO NEIGHBORHOOD PLANNING MODELS

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the Graduate School of
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Accepted by:
Daniel Nadenicek, M.S., M.L.A., Committee Chair
Grant Cunningham, Ph. D.
Cliff Ellis, Ph. D.

ABSTRACT

Neighborhood models and patterns are used by developers, planners, and urban designers to plan new neighborhoods and guide the revitalization of older ones. Models are typically based on theories about ideal communities and frequently include significant social objectives.

Comparing neighborhood models with studies of neighborhood life, reveals that neighborhood social and behavioral patterns do not always fit the plan or social objectives of the proposed neighborhood models. There is a gap between the objectives and vision of the models and the patterns of life in the neighborhood. Social patterns such as neighboring, urban cognition, travel preferences and personal meaning showed that residents had a substantially different understand of neighborhood than planning theorists and urban designers. They often made use of the neighborhood differently than the designers intended.

A change in the understanding of neighborhood occurred with the acceptance of Clarence Perry's neighborhood unit concept as a general pattern for neighborhood development. The neighborhood became, in theory, a self-contained unit in a cellular city and detached from its traditional town base. In the traditional city, a neighborhood was a subset or section of an entire urban system. It was not possible to think of neighborhood without thinking of city.

This study will identify important neighborhood social patterns and compare these with the typical neighborhood models, reconsider the definition of neighborhood and its relationship with community, and suggest ways that neighborhood plans might better

accommodate critical neighborhood social patterns. Studies of neighborhood patterns have shown that specific built forms are associated with these patterns, sometime helping sometimes hindering their expression. This suggests that design guidelines can be developed using physical features that are part of the environmental setting in which these patterns occur. Developing graphic samples to illustrate how guidelines might be used in the design of neighborhoods would be a further step in this process. This study, however, will be limited to developing design guidelines and will leave graphic illustration for a further project.

ACKNOWLEDGMENTS

I would like to thank the thesis committee members for suggestions and advice in helping me to develop and focus my attention on a particular topic in neighborhood studies. Because the area of neighborhood studies is so broad and its topics are so intricately interconnected, there is always a temptation is to try to cover too much ground in a study of this type. Their comments were very helpful in limiting my inquiry to a manageable size.

I would especially like to thank Professor Dan Nadenicek who worked with me through many meetings and discussion for one year in the preparation of this thesis. His comments and questions helped me to clarify my thoughts and see the connections and relationships between neighborhood social patterns and neighborhood design models.

Finally, I would like to thank Dr. Terry Farris who encouraged me to pursue my interests in city planning and made it possible for me to do so at Clemson.

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INTRODUCTION

This project began as an attempt to identify specific neighborhood features that could be used by builders and developers to construct better neighborhoods. My aim was make available to them illustrations of sample features that could be used as patterns in the design of new projects. Sample patterns would help identify the basic design features that contribute to the formation of good neighborhoods and communities. My experience as a construction manager revealed to me that new projects often did not provide the features that contribute to true sense of community.

Another issue that caught my attention was the ever increasing size and sameness of urban areas. Neighborhoods seemed to lack differentiation, focal points, and distinctive culture. There was for many neighborhoods no identifiably town center that might help create a sense of identity and belonging, no suitable gathering places where one might find community.

All of this was in sharp contrast to my experiences while living and exploring city life in other places such as the Province of Quebec and much of Western Europe. After experiencing these more traditional cities and places and then returning, one is struck by a lack of cultural development in typical American cities. It seemed that we could do better. We could improve our cities and towns. We could find an American pattern that would offer people a fuller range of community life.

There are to be sure examples of more complete community development in various cities in the U.S. such as the historic central areas of Charleston and Savannah, or in the city of San Francisco. And often where a type of island culture has developed such as in

Key West, FL, or sometimes in communities at live-aboard costal marinas, one finds a very close knit community that knows how to have fun and how to watch out for one another. As I thought about these experiences, I kept thinking about the differences. What were the features or elements that made these places unique? What was missing from so many of our cities and towns? What was needed to bring about a more vibrant community, town, village, or city? What were the essential features? How were they related to one another? How big? How small? How far apart?

A preliminary reading in the area of good urban form, however, led to the realization that there was a significant gap between the models proposed by urban design theories and what residents saw as important, or how they actually lived in neighborhoods. Writers such as William H. Whyte (1980, 1988), Kevin Lynch (1960, 1981), Jane Jacobs (1961), Herbert J. Gans (1962), Suzanne Keller (1968, 2003), Clare C. Cooper (1975), and others were pointing to a type of community life and an understanding of community that did not seem to be reflected in the theoretical concepts of neighborhood (Hall, 2002; Perry, 1929/1974; Stein, 1957).

Neighborhood planning involves many specific goals that affect the quality of life in the neighborhood. Planners typically address specific issues such as demographics, auto use, income, employment opportunities, and social goals such as diversity, community participation, and affordable housing. These issues are important because they promote the public good. However, many times neighborhood plans are proposed without having a solid understanding of the social dynamics operating in the neighborhood. Planning errors of the past, as evidenced in the road building and urban renewal programs of the

1950s, 1960s, and 1970s, have shown that inadequate knowledge of the social dynamics of a neighborhood, as well as a misunderstanding of the ecological impact of these programs, has led to the destruction of entire neighborhoods and communities (Gans, 1962; Jacobs, 1961). And in their place, the new housing units that were built often resulted in degrading and dangerous living conditions (Krupat, 1985). This was not what planners had intended, but these failures were, among other things, part of a larger failure to understand the specific nature of the social life and culture of the neighborhoods in question.

In the post war era, planners and government agencies established programs that encouraged suburban development and home ownership. The suburbs, like the cities they superseded, gradually became overwhelmed by traffic, pollution, and excessive consumption of land and resources.

Since the 1980s, there has been a new round of proposals for the planning of towns and neighborhoods with priorities of reducing auto dependency, improving housing equity, and addressing issues of environmental responsibility and sustainability (Barton, Grant, & Guise, 2003; Congress of the New Urbanism, 2006; Duany & Plater-Zyberk, 1991). While these goals are important, we must still examine to what extent the social functions and dynamics of the neighborhood and community have been considered in the planning of these new communities.

If we propose alternative neighborhood plans, the social dynamics of the neighborhood must be more carefully studied. Urban planners should have an understanding of certain basic neighborhood issues. For example, what social forces are

at work in the neighborhood and community? How do people really live and interact in the neighborhood? What is a neighborhood? What behavioral differences exist between social classes? How does this affect neighborhood functions and the use of facilities? How have existing neighborhood models performed?

Neighborhood models are typically based on a specific set of social goals and a particular social vision of the good community. These social goals often predetermine the objectives of the design program. Neighborhood design is thereby given the task of assisting or promoting these social goals. This often results is an idealized type of planning in which the needs, habits, and the social customs of the residents and neighbors are preempted by the design theory. In other words, the values and goals of the planning or design theorist take precedence over the life style patterns of the resident users. While it is appropriate for designers to start with specific values and a design program that enumerates the goals of the project, if these goals do not incorporate or reflect the social patterns or fit the habits of the residents, the result will be a poor fit between the design and the users.

There is, it should be added, active disagreement about what effect physical design can have on social objectives (Gans, 1968; Keller, 1968, 2003). While it is true that design cannot overcome social deficiencies or always withstand the impact of cultural changes (Crawford, 1995), we do have many examples of towns and neighborhoods that were greatly improved by new designs. If poor neighborhood design produces less than good results, can better design, one that also address the living habits of the residents for example, produce better results?

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The study of neighborhood also requires a study of neighborhood types.   Different classifications of neighborhoods have been proposed depending on the particular perspective and the purpose of the observer (Gold, 2002; Krupat, 1985). An approach that appears to be particularly useful for neighborhood planning has been proposed by Sidney Brower (1996). Brower's classification is based on differences observed by urban residents, the extent of social interactions desired by the residents, and their use of home and neighborhood facilities to perform what he calls residential functions. His analysis illustrates a practical way of grouping neighborhood types into general categories that are specific enough to be useful to the planner but not so detailed that they encumber the processes of planning and design.

Another major issue that must be considered in the study of neighborhood is the relationship between stability and change. Over the course of time there is a reciprocal interplay between the fairly stable patterns of urban settlement and social organization and the continual change taking place in the urban environment due to economic and technological advances. There are also additional social changes to consider in the make up and social class of the neighborhood.

There seems to be on one hand then certain stable patterns of human settlements over time. Most societies seem to reflect similar patterns of communal involvement and organization, specializations of activities, familial bonds, friendly associations, and ethnic or tribal identity (McAndrew, 1993). On the other hand, developments and advancements in technology and industrialization, and the increased mobility and migration of people, have changed how these settlement patterns function. In Boston's

West End, for example, the social composition of the area had changed three times from immigrant Jewish to Irish tenant farmers to Italian farm workers. Each group had a different social structure and different long term social goals. The way they lived in and used the facilities of the neighborhood varied according to these differences. Yet there were still underlying similarities in the social patterns (Gans, 1962). There are then these additional interacting forces of stability and change to account for in the life and function of the neighborhood.

A further assumption about neighborhood study needs to be made. Patterns of neighborhood culture can be critically observed and documented (Whyte, 1980, 2000; Lynch, 1960, 1981; Keller, 1968, 2003; Gans, 1962, 1968; Jacobs, 1961; Cooper, 1975). There is abundant information about the social patterns of the neighborhood residents. And these critical sociological factors are part of an understanding of neighborhood life.

Patterns of social life in the neighborhood often involve a complex interplay of different behaviors that come together in a single social phenomenon. For example, the process of neighboring can also involve perceptions of public and private space (Cooper, 1975), and it can also be influenced by street patterns in the neighborhood (Whyte, 2000). But in everyday life, it will be seen as a signal reality, a single complex activity.

Considering the complexity of neighborhood social patterns, what sort of neighborhood plan or design features would accommodate them? How have urban planners and architects addressed these patterns? So far the results seem to be mixed. Many planners and designers have accommodated their planning to the more visible

changes in society like technology and mobility, but show less understanding of the more intricate social patterns that exist in neighborhood culture.

When studying the neighborhood we must also examine our definition and concept of neighborhood. Just as basic design assumptions influence and are reflected in design solutions, so the concept of neighborhood influences the design model as well. Is the neighborhood a spatial arrangement or a social network? How is the neighborhood defined? By geographic and political boundaries, or by perceptions? Is the neighborhood a self-contained or an interdependent entity? Are there physical limits to neighboring and social connections in a neighborhood? These are some of the issues that a social analysis of the neighborhood can address.

With the arrival of the industrial age, many significant and rapid changes began to occur in western society. Ebenezer Howard (1850-1928), observing the rapid migration of rural people into the city and the desperate conditions that resulted, concluded that these new urban residents in now overcrowded cities must somehow be moved out of the city into decentralized village-like settlements. He presumed that life in a village was better for them even though they had fled the village because of poverty and lack of opportunity (Hall, 2002; Howard, 1965).

For Howard, the traditional village became an important source of inspiration for his Garden City model. Village life became a basic model for many other planning theorists as well. But is the village a relevant model for urban neighborhoods? How does the social structure of the village compare with that of the working class or middle class neighborhood?

Clarence Perry (1872-1944), who proposed the neighborhood unit plan in the 1920s, was also reacting to poor living conditions in overcrowded industrial cities, and to the dramatic effect the automobile was having on urban life (Perry, 1929/1974). His neighborhood unit plan was an attempt to deal with these conditions. In Radburn, NJ, Perry's ideas were applied by Clarence Stein (1882–1975) and Henry Wright (1878–1936). These ideas along with modernist concepts of cluster housing and superblocks resulted in a much promoted pattern for community planning (Stein, 1957). The concepts embodied in Radburn were used in modified form in the neighborhood patterns provided by the Federal Housing Administration (FHA) for postwar suburban development (Silver, 1985).

Since the 1980s, neo-traditionalists have proposed models based on traditional pre-war towns and villages that were more centralized and compact (Duany, 1991). When these pre-war towns were built, social structure, transportation and economic opportunity were much different. Community functions were largely contained within the local area. Social life was based on an agricultural economy and society, or in the case of an industrial town, on a much smaller and more closely knit physical setting. Transportation and mobility were limited. Since neo-traditional models are based on former settlement patterns, are still relevant in today's mobile, open, interdependent, and ever changing society, and more importantly for this study, do they fit the neighborhood social patterns of today. Are there aspects of these traditional models that are out of date?

Why is this important? First of all, we have the lessons of the past. In the first half of the 20th century, planners and policy makers saw new suburban towns and garden

cities as an answer to urban congestion and poor living conditions. In practice, the new towns proved much more difficult to establish than was hoped for because of the difficulty of attracting and providing employment for the residents. The idea of new garden cities was quickly altered to new garden suburbs, such as with Hampstead Garden in England and Radburn, NJ in America (Hall, 2002). Rapid suburbanization became the dominant form of development with little understanding of the social, economic, and technological forces at work, or the consequences of this type of development (Duany, 1991).

In the post war period in the United States, urban planning efforts focused on redevelopment of the decaying inner core of cities. Many viable traditional neighborhoods and communities were torn down by federally sponsored urban renewal projects and replaced by developments that degraded residents, created an intractable poverty, and became havens of crime (Hall, 2002; Krupat, 1985). In a similar way, the highway programs of the post war years overran viable neighborhoods and historic areas and often split urban neighborhoods so that neither the partitioned sections nor the original city could any longer function as a whole. Rather than solving traffic problems, the new highways seemed to stimulate even greater auto usage and dependency (Duany, 1991; Jacobs, 1961).

Today there is great concern about the perceived loss of community in cities as well as in the suburbs. Designers have recognized that there are problems of community and have attempted to provide solutions. But do these new solutions include a careful study of the social dynamics of the neighborhood? Or are they similar to prior idealistic

designs, understanding too little about the actual social patterns of the neighborhood and reacting only to the more visible and dramatic changes in society?

It is obvious that we need orderly planning for towns and neighborhoods that addresses the problems of sprawl, pollution, excessive energy and resource consumption, sustainability and other critical factors. The problems of planning are multidimensional and interrelated involving technology, community, transportation, economics, demographics, change, as well as complex political factors. Whatever we propose as solutions to neighborhood problems or as patterns for new development, the proposed plan ought to fit the human person, the human social group, the neighborhood and the community. In addition to the broader social and physical goals of planning, an understanding of how the neighborhood and the community work as living social entities is required. As stated by Raymond Unwin (1863 - 1940) in his Columbia University lectures of 1936, "I cannot stress too strongly at this time the importance of human psychology in studying the housing and planning of a community." (Unwin, 1967, p. 167) For these reasons alone it is important that we spend more time trying to understand, not only demographics, but people.

By the year 2030 it is projected that half the structures in place by that time will have been built since the year 2000 and the majority of that development will be for residential space (Nelson, 2004). The sprawling and disconnected patterns of residential and commercial development that have occurred since the end of World War II have been a significant factor in the ever expanding urban metropolis. Unfortunately these patterns have been replicated over much of the urban landscape. Projections of future growth

underscore the need for more efficient and responsible patterns of development than we have seen thus far.

Design "patterns" or templates are used by developers to plan and construct new projects. Although several new development patterns have been proposed in recent times, such as transit oriented development and new urbanism, they do not seem to have had a significant influenced on the general trend of new developments. Ruth Knack (1998), an editor of Planning Magazine who has studied suburban development for over 20 years, toured subdivisions being built north of Chicago in 1997 to see if they had been influenced by the planning ideas of new urbanism. She found that they had not. Instead developers were following the standard practice of using stock plans from plan books. Their primary aim was of course to sell houses, and these tried and true plans had done just that. She goes on to discuss how architects seem to be more concerned with individual buildings and planners with code compliance, rather than the larger issues of community planning as a whole.

Since the use of stock plans, neighborhood models, and village patterns, or typologies, as Douglas S. Kelbaugh (1997) refers to them, figure so prominently in the development of new settlement areas, it is important we understand the role of these patterns and typologies. Types are abstracted patterns followed by designers in the planning of buildings, communities, and urban areas. Types are based on models and completed projects that usually represent the best expressions of a specific design genre such as classicalism, modernism, or traditionalism. The details of a particular type are generally consistent with the basic design theory or idea. Types are often used as a

starting point in designs because they suggest ideas that have worked well in the past. Even in the case of modernism, which rejected reliance on traditional forms and patterns and sought to create an architecture based not on patterns but on function and the machine age, a modernist typology eventually emerged (Kelbaugh, 1997).

The builder or developer who consults plan books is following good practice by using what has worked well in the past, and even more importantly, what has produced a profit. However, the reality is that unless urban designers and planners are able to put into the hands of the developers better alternatives to the sprawling and inefficient patterns now being used, there will probably not be any significant change in the pattern of urban development.

An understanding of the basic neighborhood social patterns can be a starting point for the development of new neighborhood forms. Since social patterns occur and function in specific environmental settings, the physical form of the neighborhood could be shaped to fit observed neighborhood social patterns. For example, observations of neighboring show that it usually occurs within a small area, roughly one or two blocks, and usually along specific paved pathways such as streets, sidewalks, parking lots, and alleyways (Whyte, 1980; Lynch, 1960; Cooper, 1975). It has also been observed that certain physical features can interfere with the neighboring process. If the streets are too wide or if there is no transitional space between the street and the front entry, neighboring will be inhibited (Cooper, 1975). These connections between environmental features and the social patterns could be used to enhance the neighborhood plan.

Exactly how design can support and enhance neighborhood social patterns is a complex question, and there are probably an unlimited number of solutions to these problems. In addition, there are many non-social factors such as topography, economic needs, market niche, facilities, infrastructure, economic pressures, and political considerations to deal with. The problem for the designer is to creatively relate and coordinate these factors into a single neighborhood plan. The particular solution will depend on each situation. But by having at the start of the planning process some general design patterns or samples that address neighborhood social patterns would help produce designs more suited to daily life in the neighborhood.

The essential question for this study is how can these neighborhood social patterns be accommodated in the neighborhood plan? A long range solution would be to develop graphic patterns that illustrate these relationships. The goal of this project, however, is just to take the first step, to develop some basic guidelines that address social patterns and that might be useful in a design program. Accomplishing this objective will involve three steps: 1) review neighborhood models looking for links between the models and social patterns; 2) identify the significant social and behavioral characteristics of the neighborhood that are relevant to a program of neighborhood design; and 3) develop design guidelines based on these patterns that can be used in a design program.

In developing these guidelines the environmental settings in which social patterns occur will be very helpful. The physical features that play a part in neighborhood social activity can be utilized in the neighborhood plan to support and enhance neighborhood social patterns.

METHODOLOGY

The aim of this project is to identify and describe neighborhood behavioral patterns that can be incorporated into a program of neighborhood design. Once these patterns are described and linked to specific environmental factors, guidelines can be developed to assist the designer in fitting the behavioral patterns of the residents to the neighborhood plan. Without such guidelines the designer can only rely on idealized concepts of neighborhood or perhaps on personal experience in determining what environmental features or design solutions might be helpful for the community. While this project will focus primarily on the neighborhood, it will also involve a discussion of town and community since these cannot easily be separated from the concept of neighborhood.

The background research for this project will involve two areas: 1) a historical review of neighborhood models and their design proposals, goals, and solutions, and 2) a description of neighborhood behavioral patterns as reported in the literature of urban sociology and environmental psychology. For this part of the project, I will use secondary sources and existing case studies. These two areas need to be investigated somewhat independently at first looking for relevant data and related issues.

From the area of urban sociology, we will look into issues of neighboring, voluntary associations, the use of facilities, social class, homogeneity and diversity, neighborhood types, and the relationship of community and neighborhood. Issues of urban cognition, territorialism, public and private space, personal preferences, and personal meaning will be investigated from the area of environmental psychology. In dealing with these issues,

we will also consider the findings of other neighborhood observers in the fields of planning and journalism.

According to Suzanne Keller (1968), a large body of social research dealing with neighborhood behavioral patterns already exists in social science literature but has been little used by neighborhood planners. One reason seems to be that the questions and perspectives of behavioral studies do not always match up with the interests and concerns of planners. In addition, sociological findings are typically not expressed in a form that can be conveniently used by the designer. A possible improvement in the situation would be to re-express these finding in ways that can be readily used in design. One advantage for the designer in dealing with neighborhood behavioral patterns is that they usually occur in environmental settings which can be described in terms of specific spatial and physical features. Features such as street patterns, walks and paths, edges, distances, and public and private spaces describe links between social patterns and built forms. This linking of behavioral patterns to their environmental settings is fundamental to the development of design guidelines. By studying and describing behavioral patterns in this way, it is hoped that the gap between planning, design, and behavior can be bridged and that the findings of the social sciences can be put to better use in neighborhood planning.

By making use of environmental descriptions, the design assumptions of neighborhood models can be compared to the neighborhood social patterns. And it will also be possible to construct guidelines for use in a neighborhood design program.

I realize that some will dispute that there are any stable social patterns in human society, or that there is any connection between design and the social functions of the

neighborhood. I will leave questions regarding the stability of human social patterns to the studies of the social scientists. However, the general consensus among social scientists is that there are stable patterns even across cultural lines (Hassinger, 1985; Lynch, 1981). The connection between social patterns and design, and between social goals and design, is more complex and will be discussed in the study.

An objection to this type of endeavor has been voiced by Douglas Kelbaugh (1997) who refers to similar efforts in the 1960s that "failed to come up with a body of knowledge or information that could be easily applied by designers" (p. 101). It is difficult to determine exactly what type of knowledge he was referring to since he does not give any examples or references. As acknowledged above, there are problems in applying knowledge gained in one field to another. These problems are not insurmountable, however, and can be overcome by carefully considering the finding of the social sciences and linking these finding to design elements in the neighborhood. Such an approach has been successfully followed by William H. Whyte (1980) in his study of small urban spaces, by Herbert Gans (1962) in his study of Boston' West End, and by Clair Cooper's (1975) study of Easter Hill Village.

Kelbaugh's criticism is also somewhat countered by the recent contribution of social research to the problems experienced in urban renewal and public housing projects (Krupat, 1985). Since the 1970s, there has been growing interest in the issues of defensible space, territorialism, zones of influence, and subdivided semi-private spaces as well as the strengthening social networks as ways of improving life in public housing projects (Krupat, 1985). These issues are very complex and no single solution will solve

all problems. But what it highlights is the growing conviction that there is an important

connection between human behavior and design.

NEIGHBORHOOD MODELS

One of the purposes of this study is to determine if neighborhood models proposed

since the onset of modern urban planning fit neighborhood social patterns. As with any

investigation, establishing a sense of historical development helps to clarify key

fundamentals that might not otherwise be seen. Since we are dealing with real world

facts and situations not just theory, a review of actual neighborhood forms and the reason

for their particular designs helps to understand the link between human needs and

settlement types. A historical look at neighborhood sets a background for understanding

current relationships. It also reveals changes in the ways urban societies have dealt with

neighborhood organization and with the role of neighborhoods in urban structure.   So

also in this study, a historical review of neighborhood forms reveals key functions and

background rationales for neighborhood design.

Classical and Pre-industrial Neighborhoods

Two key factors determined the forms of classical and pre-industrial cities:

defensive structures and centralization (Clay, 1973; Lewis, 1984). Many early cities

show distinct defensive features to their settlement patterns. Defensive needs required a

concentration of forces and structures behind barriers and other protective measures.

Canals and walls were used as a part of this defensive system. Advances in the strategies

and methods of warfare however required cities to continually enhance these features.

Ceremony and religion was another motivation for the design of early cities (Kostof,

1991; Lynch, 1981). The great cities of the early Americas and Egypt were located at

temple sites and incorporated large ceremonial streets. Tenotihuacan was "laid out along a great monumental avenue … intersected by a major cross avenue" (Lynch, 1981, p. 9). An urban structure grew up around these sites and began to include specialized crafts and commerce to service the temple activities and accommodate the people who traveled to worship at the temple site. As Temples and palaces became the central focus of early cities, specialized neighborhoods of the city which housed workers, craftsmen, and religious and governmental officials sprung up around the centralized structures (Kostof, 1991). The rationale for the physical design of the city was a result of the purposes and culture of the settlement.

The need for defensive structures and the requirements of ceremonial sites led to the centralization of key urban functions. Centralized cities could control trade, religious practices, the development of ideas and culture, power within the region, and populations both local and distant. Centralized functions determined the distinctive forms of ancient and pre-industrial cities. Concentrations of structures were needed to support their basic urban functions. Internal street patterns linked the common people, their rulers, and travelers to key internal sites. External roads linked them to other cities. A clear centralized pattern was the general form. Outside the city walls squatter settlements also abounded but the main focus was on the urban settlement within the walls. By definition, the citizen was the person who lived within the wall.

Vitruvius (1960) offers an insight into the practical considerations behind the design of ancient cities and towns. His first concern was for the selection of a site that would provide a healthy environment. The architect was to consider the sun and the wind, as

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well as the presents of marshes and water. The next concern was for supplies for the town such as food and water, and for good transportation. Once these preliminary factors were addressed, the city walls were established, the interior of the town was laid out, and the architect designed the streets and public buildings. Vitruvius favored an octagonal shaped city with the main public buildings at the center and eight streets radiating from the center to the city walls. Local streets ran parallel to the city walls and from one radial to another (Vitruvius, 1960).[1] Each physical design element was meant to provide for a specific purpose be it health, safety, movement, trading and commerce, religion, or the activities of daily life.

The Greek and Roman architects and planners likewise revealed something of their intent by the forms of their planned cities.   The main public buildings were located along a principle ceremonial street usually running through the center of the town or along an important point of the city like a waterfront. The plan of Miletus (Figure 1) shows how the city was organized to address its commercial activity at the port.

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[1] We do not know of any ancient cities that were built on this octagonal pattern.

Figure 1: Miletus, c. 470 B.C. (http://www.mlahanas.de/Greeks/CityPlan.htm)

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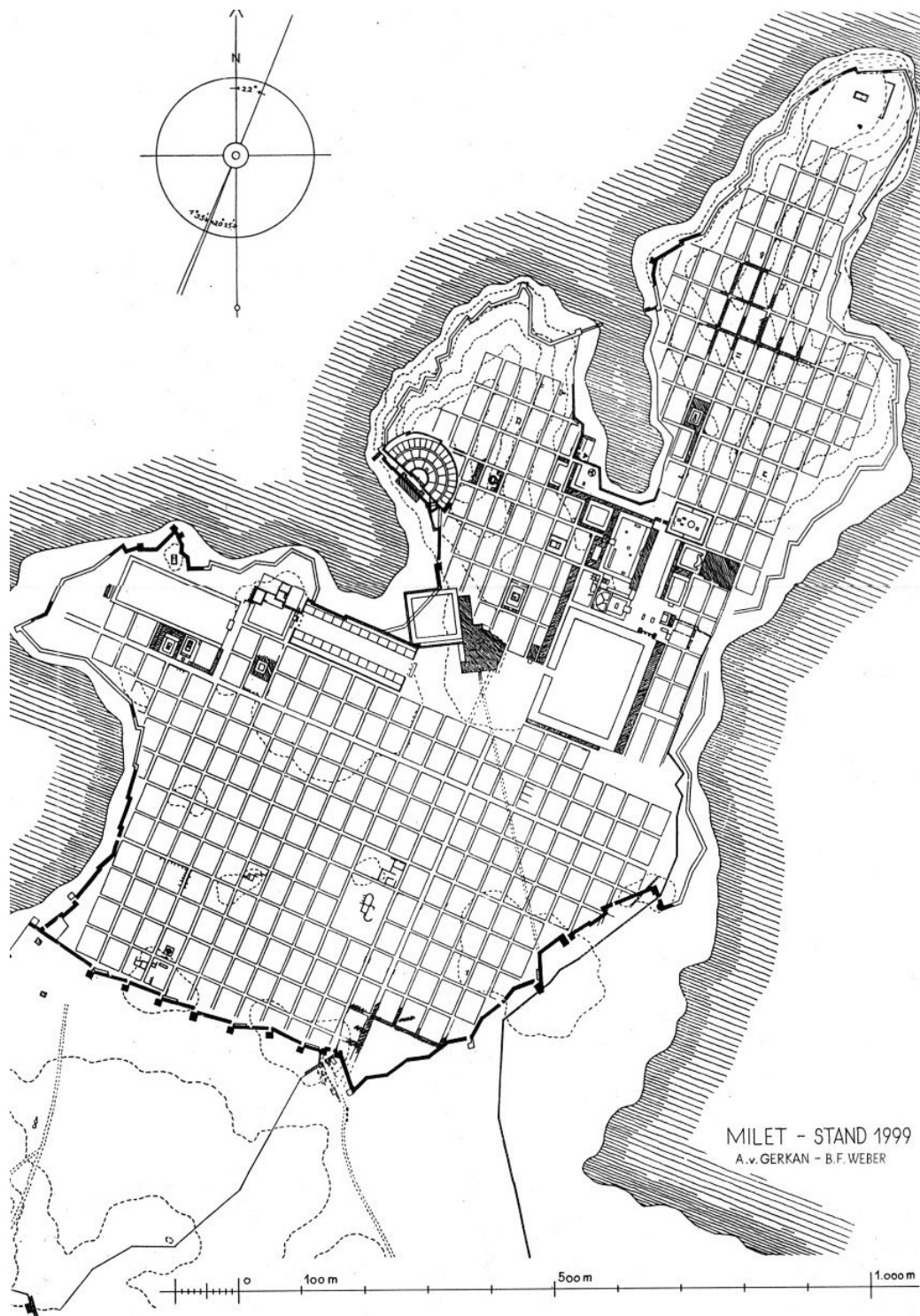
These features can also be seen in the plan of the North African city of Timgad (Figure 2). The plan shows the principle civic buildings and markets placed in relationship to each other along the decumanus. Although primarily a ceremonial street, the decumanus also served as a linear structure for the commercial and civic functions for the town.

The main activities of the town occurred along the decumanus, the cardo being the principle cross street. The resulting pattern divided the city into quarters or sections in which the residential neighborhoods were located.

Decumanus: ↓

Figure 2: Timgad, c. 100 A.D. (http://robert.portelli.club.fr/historique/timgad.jpg)

Figure 3: Ruins of Timgad (http://www.cliohist.net/antique/auxil/timgad.jpg)
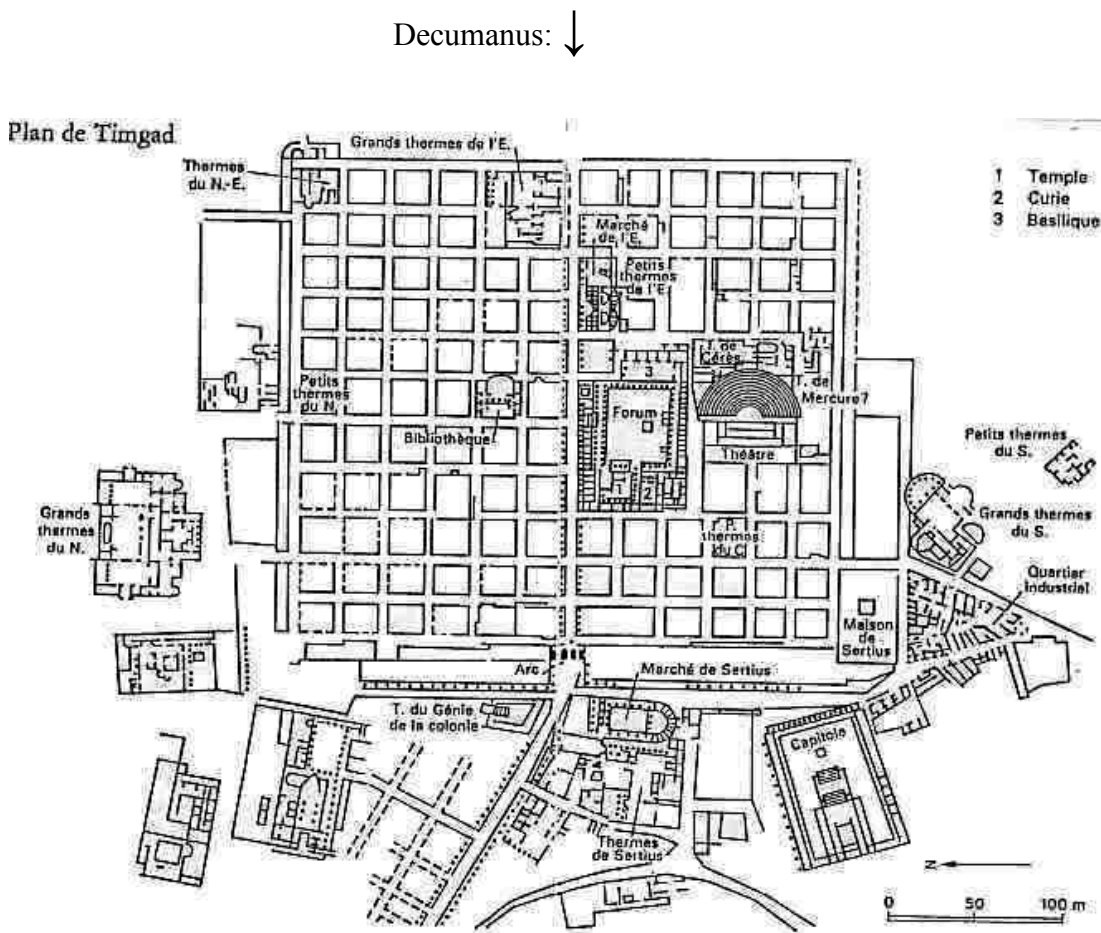
Although most classical cities were not so strictly organized as Miletus and Timgad but grew up largely by accretion, these models still give us hints of the rationale behind the organization of ancient cities. The civic life of the city was its focal point and was organized usually along a linear scheme. The neighborhoods developed within walking distance of the principle streets and along direct paths connecting the residents to the main streets.

The pattern of principle street and cross street was also present in the neighborhoods of Augustan Rome (Lott, 2004). Augustan neighborhoods exhibited two clear characteristics. First, they were organized along a main street. A "crossroads" or focal point where the main street was crossed by a shorter secondary street was used to indicate the center of the neighborhood. At this location the neighborhood gods, the "Lares,"

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were worshipped, festival occurred, and markets and neighborhood activities stretched out from the crossroad intersection along the main street in either direction (Lott, 2004).

The second major characteristic was that every neighborhood was connected to the center of Roman life in several ways. The most important connection in the time of Augustus was the Lares themselves. Typically these were gifts presented to the town by Caesar or by his delegate thereby creating a ceremonial and political link between the neighborhood and the city of Rome through Caesar. The other link to city life was the daily distribution of supplies and water that occurred at of near the Lares crossroads (Lott, 2004).

It is important to note that the Greek and Roman systems were linear in their organization although principle features like the Lares statues, or the forum, or the Agora were distinct point and places. These points were linked to other principle buildings and places and to the districts and neighborhoods in a linear or near linear system. The octagonal and radiating system proposed by Vitruvius, like the radiating networks of the Renaissance designers, were not widely used probably because they did not fit well into the practical daily movements of the people and traders within the city.

For classical cities, the starting point for the neighborhood was the "urbs" or the city itself as a settlement, and the focus was on the life of the city occurring along its principle streets. The neighborhoods were organized on both sides of these principle streets and by the street networks that connected them directly to the principle streets of the town. Daily life occurred not only in the homes and neighborhoods but along the trading and ceremonial streets of the town. Although the neighborhood and the decumanus had

distinct yet interwoven functions, the two constituted a single system. As John Lott (2004) notes, commenting on the relationship between Augustan and modern neighborhoods, "Neighborhoods are permeable communities that regularly interact both communally and on an individual basis with the whole urban community and larger sociopolitical structures" (p. 21). This relationship between the neighborhood and the town by means of its principle streets is an important point of comparison between classical and modern urban form.

As with all cities, classical cities and towns were the result of numerous decisions and compromises to achieve specific purposes whether that might be the glorification of the regime or of the gods, the safety and health of the town, defensive fortifications, or the common daily needs and activities of the townspeople such as trading or the distribution of food and supplies. The design of the town reflected a rationale and a purpose. Even unplanned classical cities and towns that grew and changed over time without a central plan, or the unplanned settlements that always occurred outside the walls of the city, reflected purpose.

It would be an enormous task to catalogue even a portion of the reasons behind the design decisions of classical, medieval, renaissance and pre-industrial cities and towns. Each city would hold an unlimited number of reasons and decisions for each structure, each district, and each placement of main features, and all over a great span of time. We could, however, for the purpose of discussion, categorize some of the principle reasons behind the physical design of pre-industrial cities into several broad categories in order to make comparisons with contemporary urban planning. These reasons would include: 1)

security and provisions for survival and defense; 2) health and sanitation; 3) control of the population; 4) control of economic activity; 5) distribution of food and supplies; 6) activities relating to production and trade; 7) celebration or cultivation of civic and cultic values; 8) specialized urban functions such as government, education, economic regulation, housing, and warehousing; and 9) vanity as displayed in palaces, villas, monuments, and official buildings.

These purposes would be intertwined or combined in sets of structures, in the arrangements of buildings, and in the layout of the streets and public spaces. But the rationale behind the planning of the city spans the times from classical to modern with only slight modification. It is with each city's basic list of purposes and goals that planners have to deal.

<center>Industrial Cities</center>

The reasons and the rationales for the physical designs and structures of cities underwent a severe challenge with the onset of industrial society. Although some pre-industrial, and even classical, cities experience severe problems relating to overcrowding, health, and sanitation, the scale of problems and their affect on the social structure of the city that began to appear in the new industrial cities was unprecedented (Hall, 2002). The industrial revolution brought with it a social revolution as well as a technological and economic revolution. It also created a series of issues and problems somewhat unique to its time including: 1) social problems resulting from overcrowding, poverty, and crime; 2) greater and more densely packed urban populations; 3) a continuously expanding

<center>26</center>

urban edge; 4) greater wealth for industrialists and for the growing middle class; 5) new social theories of government and ownership; 6) a new and powerful middle class that contended with traditional nobles and religious authorities for power and authority; 7) a decline in the importance of agriculture as the dominant segment of the local economy; and 8) a continual flow of new inventions for production, transportation, and personal living.

The planning models and theories that developed in response to the problems of the industrial city form the background and starting point of our discussion of contemporary urban planning models (Hall, 2002). In many ways we are still living in the challenge of this industrial revolution even though we have in a sense passed into a post industrial phase. Cities in many developing countries are now facing similar urban consequences of industrialization (Bruegmann, 2005).

It is generally agreed that the urban social problems of the industrial age brought about the modern discipline of city and urban planning (Hall, 2002). Although the problems of industrial cities were in some ways similar to those of prior times, the impact of industrialization and technology resulted in social changes of a completely different scale. The new industrial society faced issues of poverty and privation in rural areas; migration of the rural poor into the city; inability of the economic structure to provide enough jobs for those migrating to the city; overcrowding, poor sanitation, and inadequate housing; and desperate conditions among the lower classes such as poverty, sickness, and crime.

The most significant factor of this period was the vast migration of rural people into the city for work and a better life. This heavily taxed all the existing urban systems and produced the social problems that led to the modern planning movement. Early planners responded by proposing a decentralization of the cities and the establishment of new cities and suburbs on the urban fringe (Hall, 2002).

Solutions proposed in response to these new urban problems involved social as well as physical goals. In general, early planning proposals involved three main strategies: 1) decentralization and relocation, moving people back out into the nearby countryside; 2) separation of uses and classes, separating industry from other uses, and the rich from the poor; and 3) sufficient open space around housing areas, between distinct uses, and between specialized urban areas.

In the modern era, neighborhood models can be classified into four groups based on their chronological position. Each group can be described by its basic features.

Group I: Garden cities, garden suburbs, and company towns.

The main features of this group were the planning of new towns and communities at the edge of the city, in suburbs, or on new sites; communities of limited size; clean water and air; and more open space; and complete, or near complete, communities.

The principle goal of this group was the establishment of new towns and suburbs. The hope of the garden city models was that new towns would attract people and factories out of the city and into village like settings and thus decentralize the crowded cities. For company towns the strategy was somewhat different in that employers

provided work in the mills and factories and then sought to attract workers mostly from rural areas to work in them.

The goals of the garden city model proposal by Ebenezer Howard were to provide decent housing, employment, healthy conditions, control of the size of the city, open spaces, and city like amenities in a village setting (Howard, 1965). The difficult practical issue for the garden city was to provide employment for the residents. Except for the first experiment at Letchworth (1901- 05), it proved difficult to get factories or productive industries to locate in the garden cities (Hall, 2002). New factories usually located in or near the edge of large cities where there was abundant and cheap labor, or near a source of materials for extraction or a point of transportation. Most garden cities could not provide these prerequisites. Letchworth was only partially successful in solving the economic problems (Hall, 2002).

Garden city principles were soon modified and applied to what became garden city suburbs. Hampstead Garden (1907) solved the problem of employment by locating near a tube station that enabled resident to commute to London for work (Hall, 2002, Unwin, 1967). Similarly, later neighborhood projects of Radburn, NJ and Forest Hills Gardens, NY depended on employment provided by nearby New York City (Stein, 1957; Klaus, 2003).

In spite of this problem, the goals of creating new cities away from the congestion of large urban areas and of providing lower density housing and open space became ideals in most later planning models.

In terms of creating new towns, the company towns of the 19th and early 20th centuries were more successful than the garden cities largely because the towns were built to attract labor, especially skilled labor, to work in the mills and factories (Crawford, 1995). The obvious critical factor in their success was the economic base provided by the mills and factories. In the U.S., beginning with the mill villages of New England, industrialists sought to position factories and mills in places where they could draw on labor located in nearby rural towns and villages, as well as making use of available steams and rivers for water power (Crawford, 1995; Garner, 1992). Later on, the use of steam and electricity freed the mills and factories from the need for water power, but they still needed sources of cheap labor.

Lowell, MA (Figure 4) is an example of an early mill village. In Lowell, a single corporation developed water power for several independent companies. The town was a model of good housing and living conditions, steady work, and good pay for the local villagers, especially the young unmarried women (Garner, 1992). As the American economy continued to grow and expand, newer company towns competed for labor by offering better living conditions and pay.
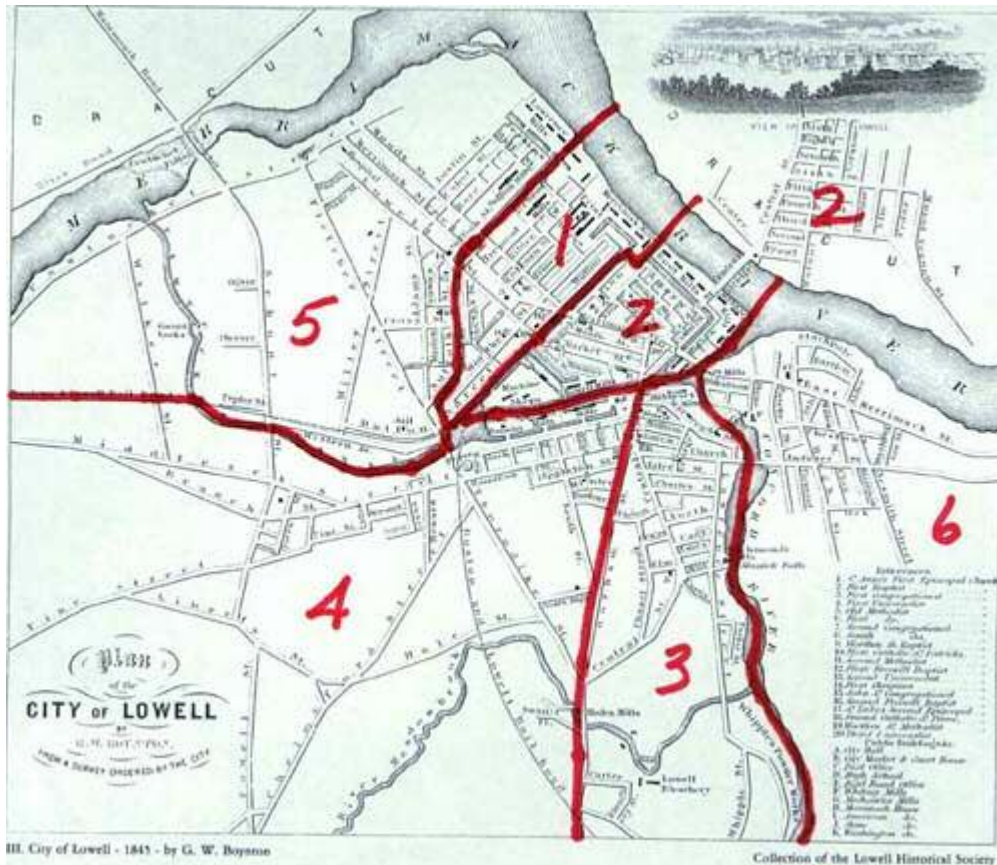
Figure 4: Lowell, MA 1850 ward map. (http://library.uml.edu/clh/1850.htm)

Company towns succeeded where garden cities did not because of their economic

base. They failed, however, to maintain the loyalty of the workers because of the

overbearing paternalism of the factory owners and the desire of the workers to have a

place of their own. They were also undone by changing economic times, and the

advantage of the automobile. One of the premier company towns, Pullman, IL, a well

designed town with a community area, a theatre, and recreation, ultimately failed due to a

poor economy, the overbearing and uncompromising control of owner George Pullman,

and the effect of the automobile (Crawford, 1995). As automobiles became more

available to workers, most sought to live away from the company town, even if the

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conditions were not as good, in order to have a place of their own away from the watchful eye of the owner (Crawford, 1995).

For both garden cities and company towns the planning goals of these towns could be summarized as healthy conditions for the residents, less congestion, closeness to work, space for families, control of the population and size of the town, and more open space for recreation and relaxation. All of these goals could be met by the physical design of the towns. But in an effort to address some of the more difficult social issues of the time, many of the early planners also had distinct and far reaching social goals which were much harder if not impossible for physical design alone to achieve (Crawford, 1995; Hall, 2002; Howard, 1965).

Howard, for example, proposed a new kind of communal ownership controlled by trustees, and had hoped for a new type of egalitarian social order (Howard, 1965). Latter garden city projects, for example Hampstead Garden, did not attempt to achieve the more encompassing social goals but were content with providing a better physical environment, better living conditions, and a more useable arrangement of the public spaces which they hoped might lead to a healthier social community (Unwin, 1967).

Garden cities suburbs attempted to give families more space to live and a better opportunity to take care of themselves. Certainly, the arrangement of the housing did achieve this objective and the concept of space around a home for gardens and family use became an ideal in later American suburbs. However, later garden city suburbs did not always have the community context which designers like Raymond Unwin and Barry Parker created in Hampstead Garden (Unwin, 1932).

The social goals of company towns were far less reaching. At first, the towns were designed simply to attract and provide housing for the more skilled workers and to develop a sense of loyalty to the company. Later designs, such as those provided by Earl Draper at Chicopee, GA and Grosvenor Atterbury at Indian Hills, MA, sought to provide for the social needs of the workers and some sense of community by centering town life on the community areas with schools, community centers, and recreational areas rather than centering it on the factory (Figures 5 & 6), (Crawford, 1995). The social goals of company towns were much more limited but more practical than those of the garden city movement.
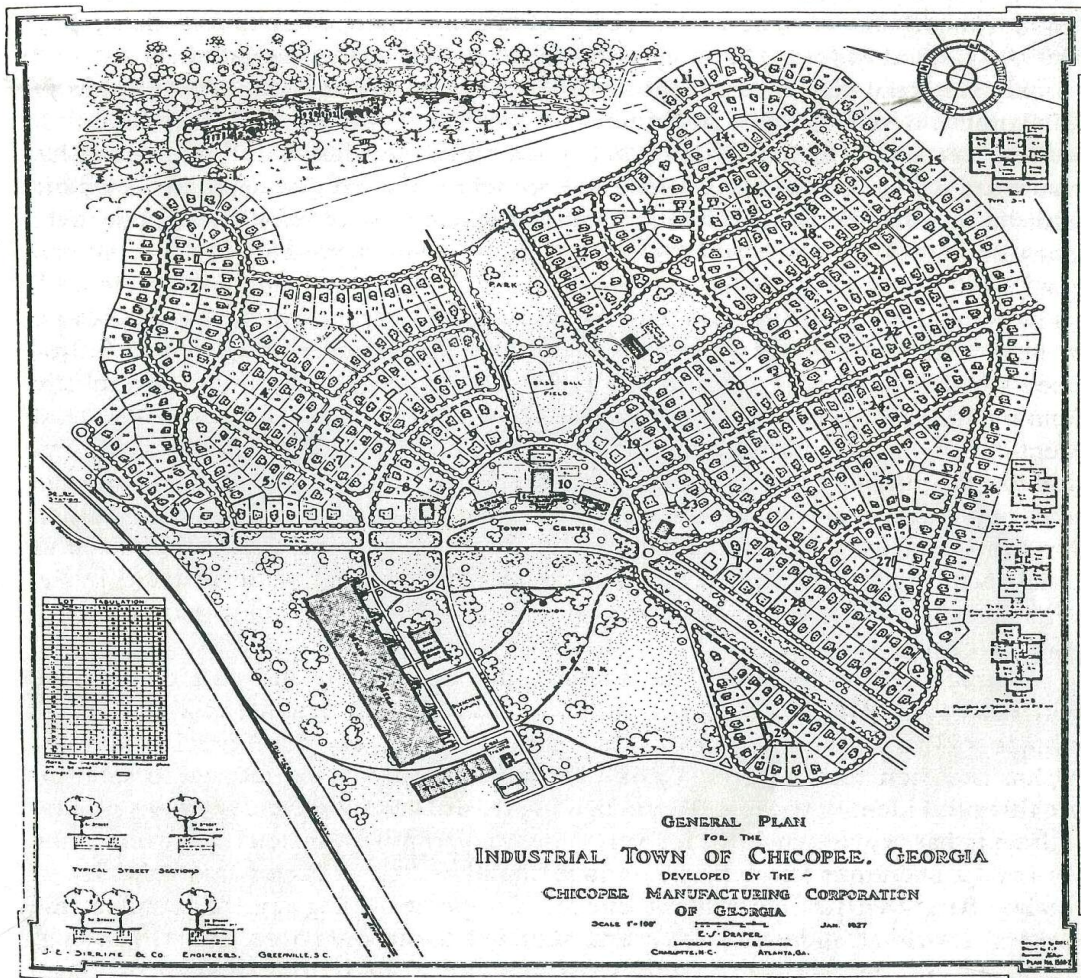
Figure 5.7 The plan of Chicopee, Georgia, 1925, illustrates many of Earle Draper's planning trademarks: loosely winding tree-lined streets, parkland buffers, and extensive recreation facilities, all focused on the town center. Note the complete separation of the mill from the rest of the village. (From Arthur Comey and Max Wehrly, "Planned Communities," *Supplementary Report of the Urbanism Committee*, vol. 2, *Urban Planning and Land Policies* [Washington, D.C.: Government Printing Office, 1939].)

Figure 5: Chicopee, GA (Crawford, 1995).

Plan of Indian Hill. Anchored by formally composed entrances to the south and east, the street plan forms a loose grid that moves across the slope of the hill. The first houses were built on the right hand side of the plan. Atterbury elaborated the street plan with cul-de-sacs, landscaped islands, and footpaths, which lead into parks within the blocks. The plan is organized around two entrances: the main entrance is a long bridge from Holden Street, halfway up the hill, while a second bridge at the eastern edge of the hills crosses the Norton plant to the east. These function as the "front and back doors" to the settlement. The first presents a formal and public face to the town, while the second provides the daily route to work.

Figure 6: Indian Hills Village Plan (Crawford, 1995).

Although company towns provided ideas and examples that were also used in garden city designs (Garner, 1992), planning theorists generally preferred the European model of cluster housing and communal open spaces to company town plans (Crawford, 1995). Cluster housing had been tried in several company towns but was not preferred by the workers even when the cluster homes were larger and had more amenities. In Indian Hills where workers were allowed to choose between cluster housing and a smaller single family home, the worker overwhelmingly chose the single family home even though it offered less (Figure 7). The workers simply preferred to have a place of their own

(Crawford, 1995). Even in Pullman, IL before the labor trouble began, workers would move to lesser conditions outside Pullman when they could afford it (Crawford, 1995).

BUILDING THE WORKINGMAN'S PARADISE

SINGLE·FAMILY·
·DWELLING·
·6·ROOMS·AND·BATH·
·SALE PRICE $3285·

The single-family cottage was Indian Hill's basic housing type. Atterbury developed six sub-types, with five, six, or seven rooms. The houses all had two floors – the upper floor was concealed behind a pitched roof with dormer windows – an attic, full basement, and at least one porch. Solidly constructed, using the highest quality materials available, including brass piping and copper flashing, they also included up-to-date amenities such as steam heating, gas, and modern appliances and plumbing. Prices ranged from 2,800 to 3,500 dollars.

Figure 7: Indian Hills Village Cottages, (Crawford, 1995).

Before their demise, company towns created a more complete community than the garden city models, and often inspired great loyalties. Although the residents of company towns expressed a clear preference for more choice in housing and social relationships, and for single family homes, the preference of theorists for cluster housing with large open spaces become a trademark in later planning models and proposals. Except for the paternalism of the owners, the company towns also provided a more complete community environment than was available in suburban developments of their time (Crawford, 1995; Garner, 1992).

Group II: The Neighborhood Unit and Modernism:

This second group of neighborhood models is significantly different from the first in their underlying view of city and neighborhood. Under the influence of new science, new technology and inventions, modernist philosophy, and the effect of a world war, city and neighborhood were re-interpreted as more machine like entities than as villages (Hall, 2002). Traditional design solutions were rejected in architecture and planning in favor of a fresh start based on the machine and technology. The analytical methods of the physical sciences also became a model for solving urban problems.   Science and technology, it was thought were the means by which age old problems were going to be solved.

The Neighborhood Unit: In the 1920s Clarence Perry (1929/1974) proposed the neighborhood unit concept. The size, boundaries, facilities, and layout of the neighborhood unit were precisely described by Perry. The neighborhood unit was to be a family-life community, a component part of a larger cellular city and a distinct entity in itself. The size of the neighborhood unit was determined by a single facility, the neighborhood elementary school. Its residential streets were laid out to discourage through traffic. Its borders fixed by arterial streets (Perry, 1929/1974).

AREA IN OPEN DEVELOPMENT
PREFERABLY 160 ACRES ∘∘
IN ANY CASE IT SHOULD
HOUSE ENOUGH PEOPLE TO
REQUIRE ONE ELEMENTARY
SCHOOL ∘ EXACT SHAPE
NOT ESSENTIAL BUT BEST
WHEN ALL SIDES ARE FAIRLY
EQUIDISTANT FROM CENTER

A SHOPPING DISTRICT
MIGHT BE SUBSTITUTED
FOR CHURCH SITE

SHOPPING DISTRICTS IN
PERIPHERY AT TRAFFIC
JUNCTIONS AND
PREFERABLY BUNCHED
IN FORM

ONLY NEIGHBORHOOD
INSTITUTIONS AT
COMMUNITY CENTER

HIGHWAY

MAIN

HIGHWAY

MAIN

SHOPS AND APTS

BELT

COMMUNITY CENTER

TEN PERCENT
OF AREA TO
RECREATION
AND PARK SPACE

INTERIOR STREETS NOT WIDER
THAN REQUIRED FOR SPECIFIC
USE AND GIVING EASY
ACCESS TO SHOPS
AND COMMUNITY
CENTER

TO CIVIC CENTER

HIGHWAY

RADIUS

¼ MILE

APTS AND SHOPS

← TO BUSINESS CENTER   ARTERIAL   STREET   TRAFFIC JUNCTION

FIG. 33
NEIGHBORHOOD-UNIT PRINCIPLES

Figure 8: The Neighborhood Unit (Perry, 1929).

The neighborhood unit as a self-contained unit of the city was a new way of looking at neighborhood and city. In prior times, cities were seen as integrated urban settlements with the neighborhoods as divisions of the city linked organically and structurally to its center and to the main civic and commercial functions. In the Roman city plans, a central main street, the decumanus, linked the main functions and sections of the city together.

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Perry developed his ideas while doing a playground study for the City of New York. In proposing the neighborhood unit plan, Perry was reacting to poor living conditions in the overcrowded industrial cities of the early 20th century, and to the dramatic effect the automobile was having on urban life. Perry based his idea on assumptions he made about a composite of relationships that were necessary for a well functioning neighborhood. His observations of city life grew into a list of component parts that when assembled, would form a complete neighborhood unit (Perry, 1929).

Perry's plan has certain distinct features. Perhaps the most distinct is its inward orientation and partial separation from surrounding areas. Commercial areas were located on the edge of the neighborhood along the arterial streets. The arterials also acted buffers to keep out unwanted through traffic. The arterial streets in effect created barriers around the neighborhood rather than connecting it to the surrounding city life. The plan created a separation of neighborhood functions and a social separation. Silver discusses this social separation as a way of keeping the less desirable elements of city life away from the neighborhood (Silver, 1985).

Since the neighborhood unit was internally focused rather than being an organic part of the larger community, the neighborhood became the focus of community life, rather that the town or the city. The neighborhood unit plan changed significantly the concept of neighborhood from an integrated district or quarter of the city to a separated element that lacked the necessary resources and functions to provide a true community life. This change was critical for future neighborhood design and for the understanding of the neighborhood especially as it relates to the city.

Perry's neighborhood unit concept, combined with modernist ideas of cluster housing and superblocks, were applied by Clarence Stein and Henry Wright to the plan of Radburn, NJ (Stein, 1957). Following Perry's concept, they placed the housing units in clusters on a series of culs-de-sac surrounding an interior park and open space. The elementary school and the recreation center were also internally located. Shopping facilities and the civic life of the neighborhood were relegated to the perimeter arterials which also formed borders to block through traffic.

Figure 9: Radburn, NJ (http://www.radburn.org/map3n.jpg)
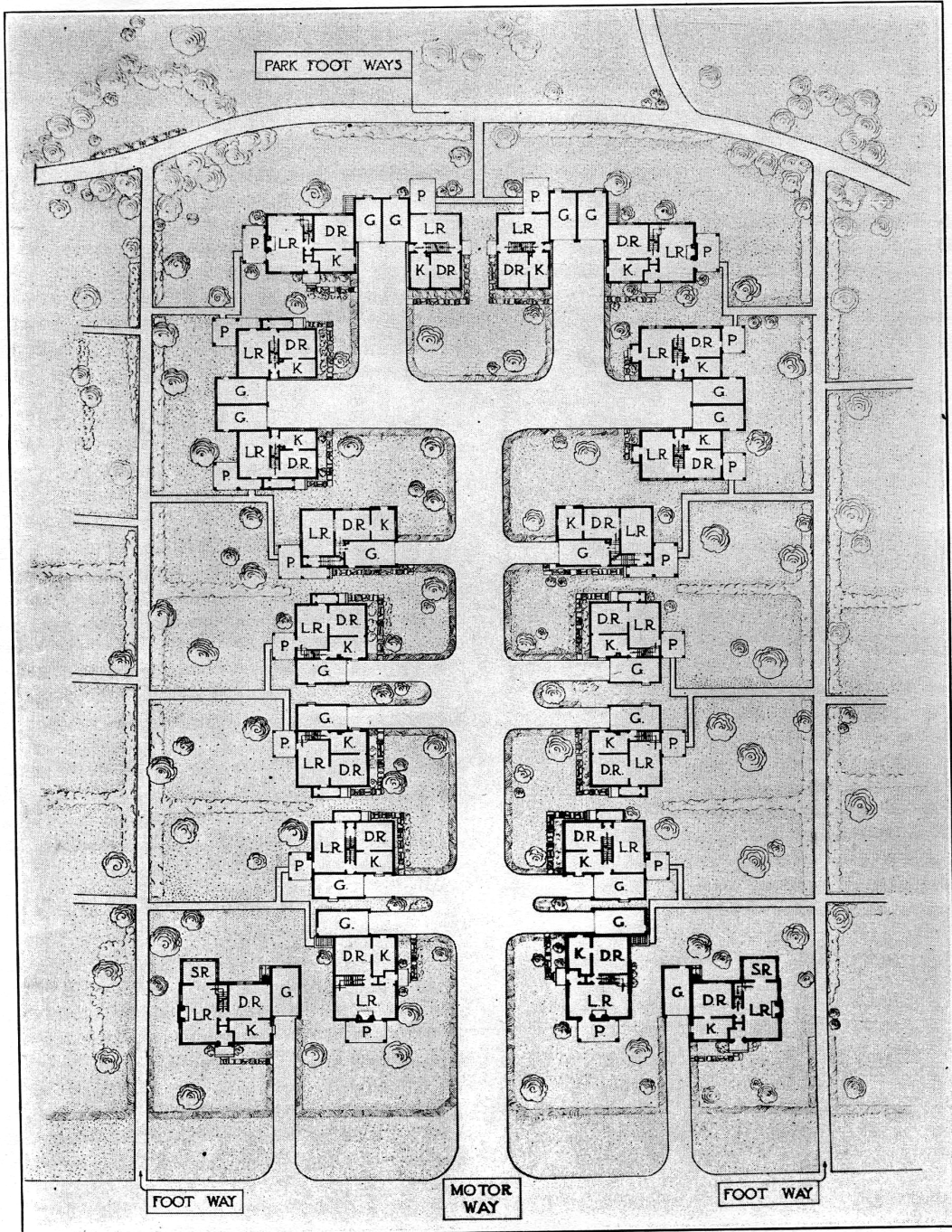
Courtesy of City Housing Corporation

FIG. 7

A TYPICAL STREET OF THE RADBURN PLAN SHOWING SEPARATION OF PEDESTRIAN AND VEHICULAR HIGHWAY.
(See also pages 63 and 267)

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Figure 10: Radburn Housing Cluster (Stein, 1957).

The suitability of the neighborhood unit has been questioned on social grounds (Jacobs, 1961; Keller, 1968; Whyte, 2000). Questions have been raised about specific design features such as centering the plan on a single facility, the lack of social and housing diversity, the suitability of a cellular model for diverse and interconnected urban groups, and the fact that the neighborhood seems to be design only for young families. It has also been criticized for being incompatible with the character of urban life. Urban qualities of mobility, diversity, the desire for choice, and the need for large areas of social interaction do not seem to be well accommodated in the neighborhood unit. Perhaps the most critical social questions concern its inward orientation. The neighborhood unit is focused on its own inner resources, which are by definition, limited. And it tends to create a division of loyalties between the neighborhood and town (Keller, 1968), a fact reported by Clarence Stein (1957) one of its designers. It seems to create, in effect, a small somewhat separated society within a large community context.

Prior to Perry, Fredrick Law Olmsted, Sr. (1822 – 1903) developed a neighborhood plan for Riverside, IL (Figure 11). He used a different a planning concept and street pattern with a more integrated relationship to the central commercial area (Beveridge & Rocheleau, 1995). Olmsted's plan, a type of warped grid, maintains circulation and connection throughout the subdivision, a hierarchy of residential sites, and connection to the main commercial area which remained at the focus of the community. Although it discourages through traffic, it does not create an inwardly focused social structure.
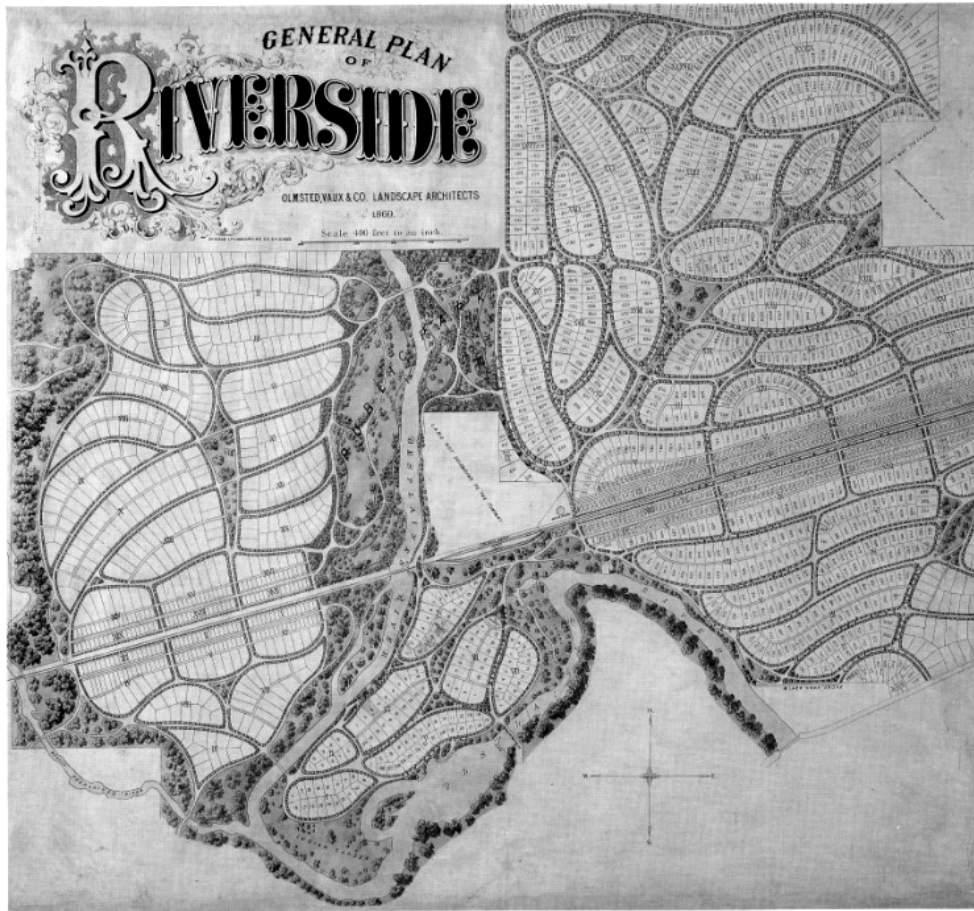
Figure 11: Riverside, IL. (Beveridge, 1995).

The design of Fredrick Law Olmsted, Jr. for Forest Hills Gardens (Figure 12) is also a good example of a new neighborhood that is will integrated into the existing city structure. Although he restricted auto access, the development is well connected to the surrounding city elements and to it employment base in downtown New York. A commuter train station was built at the entrance to the subdivision to give residents access to their jobs in downtown New York. An interesting historical note is that Clarence Perry lived in Forest Hills Gardens (Klaus, 2003). At first glance, another variation of Perry's plan is surprisingly similar to Olmsted's Forest Hills plan (Levy, 2006). There

are however subtle differences. Whereas Perry's plan and the plan of Radburn are inwardly focused and somewhat separated from the city life around it, the plans of both Olmsted, Sr. and Olmsted, Jr. show connections to the city, to the larger urban environment, and the community life surrounding it.

Current street map of Forest Hills Gardens. Courtesy Forest Hills Gardens Corporation.
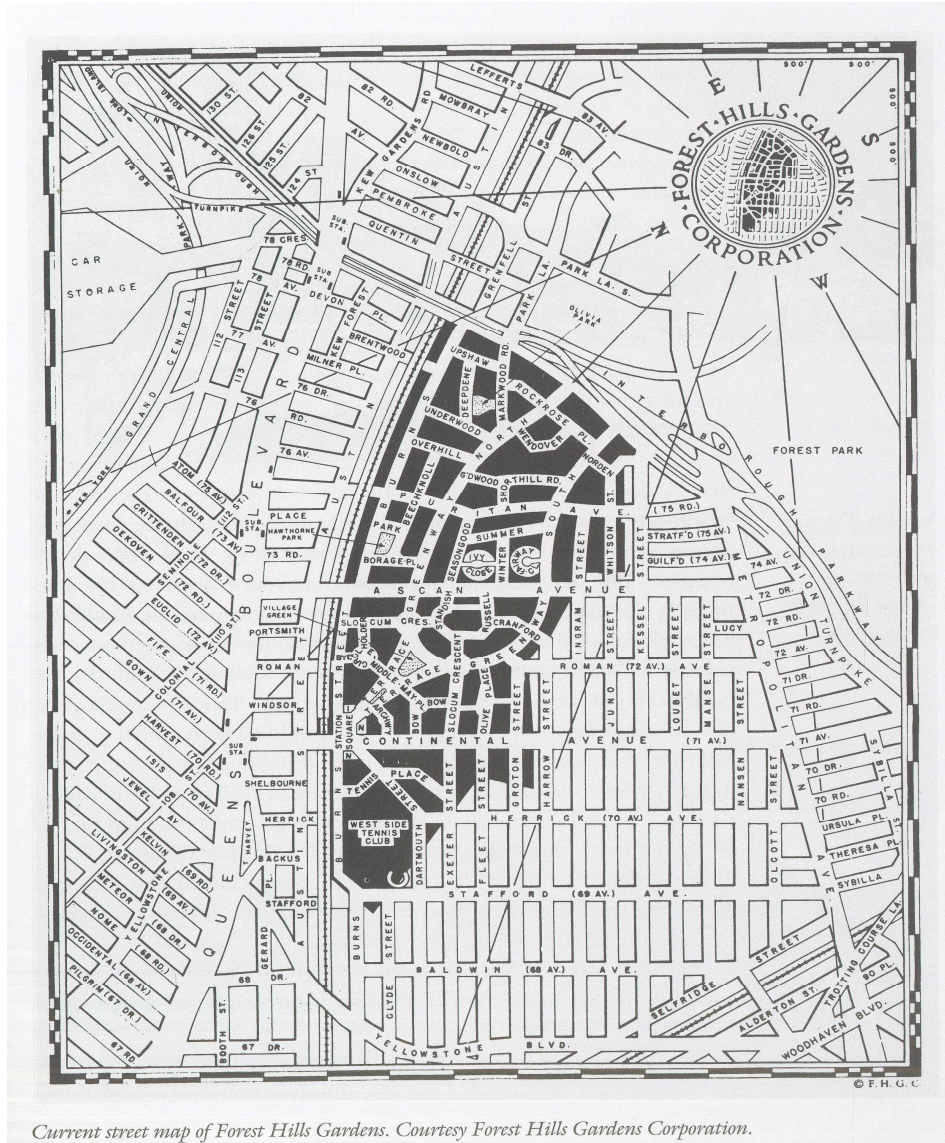
Figure 12: Olmsted's plan for Forest Hills Gardens, New York (Klaus, 2003).
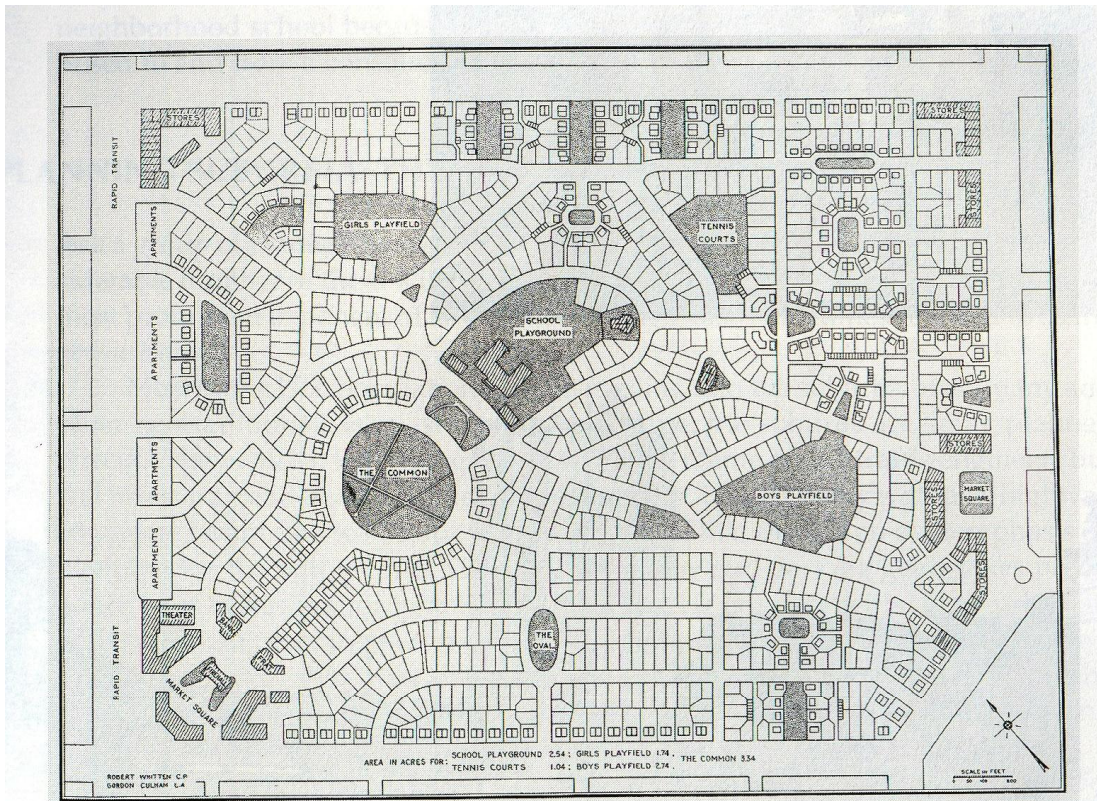
The neighborhood concept circa the 1920s. The separate boys' and girls' playgrounds seem archaic today, but the plan otherwise has many modern features—separation of commercial and residential areas, a curvilinear street pattern to discourage through traffic, the preservation of community open space, concentration of high-density housing near public transportation. Note that the neighborhood is built around a public school.

Figure 13: Perry's Alternative Neighborhood Unit Plan from Levy (Levy, 2006).

Another more wide ranging assumption made by Perry and by the theorists of the Regional Planning Association of America (RPAA) was that planners could improve and shape the social conditions of the community through design (Hall, 2002; Perry, 1929/1974). In the introduction to Perry's chapter on the neighborhood unit, Thomas Adams states this idea succinctly: The ultimate social character and quality of development of neighborhoods and communities is largely pre-determined by the way in

which land is first laid out in streets, blocks, and lots before being built upon (Perry, 1929/1974, p. 3).

The influence of modernism on the neighborhood plan was largely felt through the use of cluster housing, the substitution of large arterial streets for smaller internal streets, and the use of residential towers in large open spaces.   Some of these concepts were introduced into the plan of Radburn. Cluster housing had seen been tried in company town plans, but was not preferred by the residents (Crawford, 1995). The need for more open space has also been considered by garden city models, but not on the scale and in combination with residential towers as in the modernist concept.

Modernism has its most significant neighborhood impact on post war low income housing projects. These projects proved to be incompatible with the social patterns and customs of the residents (Krupat, 1985).

With this second group of planning models there is an important change in the concept of neighborhood from an integral section of a city to a more independent and self-contained unit. This shift had important consequences for the building boom of the years following World War II when many suburbs and subdivisions were built without reference and few links to the city. Downtowns were replaced by strip malls to service multitudes of separated housing developments. With the separation of the subdivisions from a city environment, community life became much more limited.

Group III: FHA programs, post war suburbs, urban renewal and public housing projects.

Post-war urban problems were not unlike pre-war ones, except for some key

technological changes. Society found a new freedom and mobility with the mass

availability of the automobile, and, with new inventions and machines, had gained an

ability to drastically and rapidly change the environment. Post war urban problems were

further complicated by the huge post war building boom and the migration of thousand of

new families to the suburbs. Post war issues and problems included: congestion of urban

areas, the decay of the inner city, housing shortages, rapid expansion at the urban fringe,

a rapid advance in mobility due to the automobile, traffic and sprawl, pollution, and

social exclusion.

Post war neighborhoods were not so much new patterns as they were adaptations of

previously proposed models based on garden city principles, the neighborhood unit

concept, and modernist concepts of clustered housing with large open spaces. Planning

issues dealt more with mortgage assistance and program guidance provided by the

Federal Housing Administration (FHA), and with housing, urban renewal, and economic

development than with new designs proposals (Levy, 2006). John Levy (2006) lists post

war development characteristics as: development at the edge of the city or beyond; auto

friendly and dependant; large plots and large developments; market driven; separation of

uses; access to employment, shops and schools; lots of parking; and generally pedestrian

unfriendly.

As part of the federal government's attempt to provide housing for the lower and

working class, and later for the returning war veterans, the National Resource Planning

Board (NRPB) studied 144 various towns and models. Although many company towns

were studied and favorably reviewed by the NRPB, the board, which included several members of the RPAA, showed a preference for cluster housing and open space based on European garden city models and the neighborhood unit concept (Crawford, 1995). These ideals, especially as exhibited in Radburn, became a major influence on subsequent suburban development (Silver, 1985). They were promoted by professional planning groups, such as RPAA, the National Conference on City Planning, and the American Institutes of Planners, included in planning school curriculums and FHA programs, and favorably reviewed and promoted by various magazines and authors (Birch, 1980).

The FHA guidelines incorporated modifications of these designs in the guide books that were followed by builders, banks, and developers who needed FHA financing (Silver, 1985). As a result, the FHA patterns were adopted and used in most housing developments after the war.

Post war subdivisions promoted single family homes with medium to large size lots and with shopping centers and commercial strip centers along the major highways. There was little thought of creating new cities although a few were attempted such as Greenbelt, MD (Hall, 2002). The thrust of the new suburban development was powered by the low interest loan program of the FHA (Levy, 2006).

In the 1950s and 1960s, federal and local governments became involved in urban renewal and low income housing projects. Designated slums areas were demolished and new high rise housing units were built amidst large open spaces. Most projects were built for low income families following modernist principles (Levy, 2006). They were overcome by crime, vandalism, and poor property maintenance. In addition to the social

problems, there was extensive unemployment and a deteriorated social fabric (Krupat, 1985).

Solutions proposed to solve these problems included rebuilding a sense of territoriality by using smaller, more clearly defined areas that encouraged a sense of ownership and defensible space. With smaller spaces, more in line with typical neighboring areas and limited numbers of contacts, it was also possible to rebuild some "neighboring" skills and to form small groups of neighbors to watch and protect their areas (Krupat, 1985). While these improvements did not solve all the problems, it highlighted the importance of the fit between social and behavioral patterns and environmental conditions in strengthening neighborhood bonds and community functions.

Sponsored in part by the Rockefeller Foundation, some observers of urban life began to speak out against the trends in urban planning and traffic design (Laurence, 2006). This group included planners, sociologists, and journalists. William Whyte (1980, 2000) performed classic studies of life in the city and in the new suburbs. Jane Jacobs (1961) described the diversity of city life that was being threatened by planners and highway engineers. Kevin Lynch (1960) documented the way residents see and understand the city. Herbert Gans (1962) portrayed the social life of Boston's West End district which was scheduled to be torn down and replaced with an urban renewal project. They called attention to the social aspects of city and neighborhood life that had not been adequately considered in the planning of new projects. This was the first time since the beginning of the modern planning movement that significant sociological studies and observations had

been applied to planning theory (Keller, 1968). Their efforts resulted in a return to more traditional forms of neighborhood design and the beginning of a more participatory type of planning (Laurence, 2006).

However, while neighborhood design became more traditional, the neighborhoods themselves were not reconnected to city life. The suburban way of life became an accepted fact, and millions of families were enjoying for the first time a place of their own in the suburbs.

Not everyone sees the suburban way of life as a bad thing. Robert Bruegmann (2005) argues that it is simply part of an ongoing process. Cities have become more decentralized in order to accommodate increasing population, rising incomes, and a preference for low density living.   Older sections of the city have seen an influx of new urban dwellers that replace, redevelop, and gentrify the city centers. New types of downtown businesses replace older ones. Rising incomes allow people more freedom in choosing where to live. Even in Europe, Bruegmann points out, people are moving out of congested cities in favor of more open space.

Bruegmann adds that changes in the composition of households from large to smaller families, and to one and two person households, have altered housing and urban needs. The work force has also significantly changed in that most households have two working members. He continues by noting that the practice of leapfrogging may actually result in higher densities because the areas bypassed are frequently filled in with higher density housing. The simple fact is that people generally prefer single family homes to the old

city patterns of dense apartments and little green space. It is, in his view, an elitist opinion that favors high density urban life (Bruegmann, 2005).

As this process continues, jobs and urban amenities are also relocating to the suburb and exurban areas creating the possibility for new towns and urban centers. The process is the best illustration of the efficient use of free choice in housing and life style. Bruegmann proposes using a new urban metaphor, the "galactic" metropolis of geographer Pierce Lewis (Lewis, 1984). What is happening he argues is that the form of the city is changing from a centralized one to a multi-nodal urban area (Bruegmann, 2005).

The new galactic metropolis will be more affluent and politically decentralized. People will enjoy more privacy and the ability to control their surroundings; they will have more personal and social mobility and more free choice in where to live and what kind of home to have (Bruegmann, 2005).

Bruegmann sees all this as a good thing and not that much different from what people have always wanted but could not have. Nevertheless, there is still a wide spread feeling, even by those living in this new galactic metropolis, that something is missing in all this new freedom and space.

Group IV: Master planned communities; neo-traditional, new urbanist, transit oriented and sustainable models

Master planned communities (MPC) are based on a comprehensive neighborhood or community master plan. MPC covenants control architectural styles and many of the activities that are part of the development. It typically includes large lot housing in a low

density environment, controlled access, auto access to as many nearby facilities as possible, and amenities such as open space and recreation. It also caters to personal preferences of privacy, independence, escape from urban ills, and perhaps the most important feature, image (Moudon, 1990).

However, the master plan cannot provide all the features needed for a community. It frequently cannot provide employment or the diversity needed for a healthy community. The developer usually has to choose between creating a town or a housing environment. MPCs require an on-going planning and building process that gradually add features as the town or community matures (Moudon, 1990).

MPCs range in size from to 200 to 300 acres to over 1,000 acres. They cater to the middle and upper income market and represent a specialized type of neighborhood community. Their social goals are limited to providing the type of housing and social image sought by potential buyers.

Neo-traditional communities represent more of a movement based on traditional neighborhood forms that a single specific model. The main thrust of the movement is carried by the new urbanism. New urbanism relies on well defined design controls through the use of graphic guidelines and form based codes. It also provides a comprehensive list of community goals and a network of like minded people (Duany, 1991).

Neo-traditional designers sought to address the problems of sprawl and what was perceived as a loss of urban community life. Neo-traditional neighborhoods have more socially oriented goals than MPCs. They attempt to reduce the amount of auto travel, to

have more local community life, to create more possibilities for walking, to reduce sprawl, and to be environmentally responsible. New urbanism has attempted to provide a more complete community by providing neighborhood facilities and mixed uses within walking distance. Neo-traditional designers use pre-war traditional small towns as patterns for creating new communities (Duany, 1991).

New urbanists see a strong connection between design and behavior and are committed to major social goals. Their social goals require the use of particular physical features. As Vincent Scully, Jr. notes, "The work of Andres Duany and Elizabeth Plater-Zybeck begins with the recognition that design affects behavior" (Duany, 1991, p. 21). New urbanists have adopted a list of social goals as part of their design program ranging from reducing automobile usage to encouraging "democratic initiatives and the balanced evolution of society" (Duany, 1991, p. 102).

Andres Duany and Elizabeth Plater-Zyrbeck developed a list of physical elements that they believed contributed to the formation of community by studying small pre-war traditional towns. These towns were useful in their study because they represented built forms that preceded the onset of the automobile and the cultural changes that led to sprawl. As part of their design program, they propose the adoption of new codes and design features. These concepts are compiled into a Traditional Neighborhood Development Ordinance (TND) that can be used as a model code for communities (Duany, 1991).

The Congress for the New Urbanism (CNU, 2006) lists various goals for the neighborhood. The main features include: compact, pedestrian friendly development

and mixed use; interconnected network of streets and paths; various housing types; commercial, civic, and intuitional uses embedded in the neighborhood and district; control of development through graphic urban design codes; and, parks, and green space distributed within the neighborhood. The guidelines for blocks and streets add the following criteria: streets and public spaces as shared uses; adequately accommodate automobiles while respecting pedestrians and public spaces; civic building and public gathering places to be given distinctive space; clear sense of location; and preservation of historic buildings and sites (CNU, 2006).

It is not clear how the neo-traditional movement developed their list of social goals. In the APA statement regarding the establishment of a new division for new urbanism there is, for example, no mention of the importance of or any link to the study of human behavior (Bernhardt, 2006). Although these models are more traditional, their social goals seem to represent an idealized vision and pattern of design that reflects the orientation of the designers, rather than the social dynamics of the neighborhood.

While a number of their goals and guidelines have been adopted in general planning parlance, some may conflict with observed social patterns in the neighborhoods. Such issues as mixed housing types, distinctive borders, diversity of income groups, and compact design do not always agree with observed social patterns and preferences of all social groups (Levine, 2005; Southworth, 1997). Likewise the social goals of the CNU may not be achievable simply through better design features. The issues of establishing community and social interaction are much more complex that is hope for here. Another criticism is that the neighborhood envisioned by the new urbanists seems to represent

only one specific type (Talen, 2005, p. 2f.). As discussed by Brower (1996) and others (Gans, 1968; Southworth, 1997; Marcuse, at www. nsl.ethz.ch/index.php/content/ download/ 320/1971/file/) many different types of neighborhoods are needed to address many types of social groups.

Nevertheless, new urbanists show a welcome change from past solutions in attempting to deal realistically with the automobile and to provide more complete neighborhoods.

Summary: There are seven broad categories of neighborhood models and of course unlimited variations of each type: garden cities and garden city suburbs, company towns, neighborhood unit plans, FHA suburbs and subdivisions, urban renewal and public housing projects, master planned communities, and neo-traditional and sustainable communities. The goals of neighborhood models include a wide variety of issues from health and safety to social inclusion and community development. Planning goals can be grouped into seven general categories: 1) health, safety, and community welfare; 2) social and community life; 3) economic opportunity, and stability; 4) physical order and arrangement; 5) density, and open space; 6) access to facilities and amenities; and 7) freedom of choice in housing, in associations and occupation.

The goals of urban planners likewise reflect a wide range of social and design objectives. The physical design goals of Howard's garden city model dealt mainly with improving the quality of life for the working classes of London, but he also had a well defined set of social objectives (Howard, 1965). Perry had very distinct social objectives when he sought to create a separate and protected neighborhood where people of like

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mind could raise their families (Perry, 1929; Stein, 1957; Silver, 1985). The RPAA proposed a type of regional planning that was based on a social vision of the ideal society as they believed it should be (Hall, 2002). New urbanists have, in addition to a clear set of design guidelines, a list of social goals that are part of their philosophy of design (Duany, 1991). Social goals shape the design of a neighborhood model since social goals are at the heart of the design program. This implicit connection between the social goals of a neighborhood model and its eventual design and construction emphasizes the importance of understanding neighborhood behavior as a critical element in the development of design models.

As Gans (1968) sees it, contemporary planners are trying to achieve a specific list of social and physical goals namely: open space; the certain neighborhood size; elementary schools; physical, social, and economic order; a neighborhood unit; heterogeneity and diversity; a village way of life; and community. Gans is not necessarily in agreement with this set of goals. He sees conflicts between the social life of the community and this list of goals. He argues that the social patterns of the community and the needs of the residents have not been a significant part of the planning process (Gans, 1968).

Neighborhood planning encompasses so many diverse issues and goals. Most of these goals seem to be far removed from neighborhood behavioral patterns, but all of these models and plans affect the neighborhood social patterns and in turn are affected by them. The federal housing and urban renewal programs in the 1950s and 1960s are a clear indication of such a connection for better or worse. A new highway or zoning policy can devastate a neighborhood, or bring it to life. Neighborhood social patterns are

affected by such things as the size of the city, the location of the neighborhood, the placement of facilities, the presents of public places and parks, and access to stores and shops. The social goals of planners, such as diversity, separation of uses, and reduced auto usage, for example, all affect and are affected by these social patterns. No matter what type of model we choose, there is this two way effect.

Neighborhood planning seems to be based most often on how planners and urban theorists think things are or ought to be. As Keller (1968) comments, "When physical planners design … they make many assumptions – most of them untested – about the ways in which people relate to one another, what needs exist in different groups, which needs have priority, and how social life may be influenced by physical design" (p. 4).

Certainly one improvement in the planning process has been participatory planning (Hall, 2002). By saying this, we are not saying anything new. While it is necessary for planners and designers to listen to the community, they must also consider and analyze the social tendencies, the observable behavioral patterns, and the normal everyday customs of the community that often go considerably beyond the expressed opinions of the residents. Planning must support the neighborhood way of life; the neighborhood should not have to support the planning agenda.

Planners must investigate the life of the community and build a neighborhood specific knowledge and understanding of the social patterns as part of the planning process, as well as considering the more recognized goals of health, safety, transportation, and so on. How does the busy planner do all this? As suggested by Keller (1968) planners and social scientists can collaborate on community issues. It is not

necessary for the planner to become a social scientist, only that he or she open up the planning process to sociological input.

Planners and their goals have not always had a favorable reception. As Jane Jacobs chided them, "Much of what they (planners) need to know they can learn from no one but the people of the place, because nobody else knows enough about it" (Jacobs, 1961, p. 409f.). So how can we fit the neighborhood plan to the social patterns of neighborhood life? In order to answer this question we must first get an idea of what some of the basic neighborhood social patterns are.

<center>Concept of Neighborhood</center>

A working definition of neighborhood is particularly important in the planning and design of neighborhoods. The concept of neighborhood will have a significant influence on what is judged to be important or unimportant, significant or insignificant. Our definition of neighborhood will determine in large measure the structure of our neighborhood perceptual grid that, as with all perceptual grids, influences what we see and don't see, and our response to neighborhood processes and issues.

Although the idea of neighborhood as used in everyday conversation is easily understood, it is not so easy to define. Neighborhoods are usually described in terms of their social or spatial characteristics. Social scientists, for example, focus on the features of social interaction in the neighborhood, while designers use design features, and planners tend describe the neighborhood in terms of its place in a land use scheme. In reality, while profession uses both social and physical aspect to describe neighborhood,

they tend to emphasize the characteristics most closely linked to their interests. Likewise the proponents of neighborhoods models also see the neighborhood in a variety of different ways. For Howard, the neighborhood of the Garden City model was a discrete section of a self-sustaining village (Howard 1965). Perry saw the neighborhood as a self-contained unit (Perry, 1929/1974). For Jane Jacobs, the neighborhood was the smallest unofficial and informal self-governing unit (Jacobs, 1961). In Lott's investigation of Augustan Rome, the neighborhood was defined by a single street approximately 100 meters long (Lott, 2004).

In a general sense, neighborhoods can be best understood as subsections of larger communities such as cities or metropolises (OED Online, http://www.oed.com). Within this context we can address the various elements of the neighborhood without loosing sight of its role in the life of the city. The neighborhood can then be addressed as 1) a geographic area where residents live in close proximity, 2) as a subsection of the city, and 3) as the people living in a certain place (OED Online, http://www.oed.com). However we describe the neighborhood, it is essential to see it as inextricable linked to the city as a whole. We are apt to miss the basic nature and function of the neighborhood if we think of it as an entity by itself apart from the larger urban area.

Views of Neighborhood

Perhaps the greatest change in the modern concept of neighborhood was proposed by Clarence Perry (Perry, 1929/1974; Silver, 1985). As discussed above, Perry's ideas grew out of a playground study for the New York City area. While conducting the study he

concluded that the neighborhood was composed of a set of relationships and components that could be fitted together with "each part performing a special function" (Perry, 1929/1074, p. 28).

Perry sought to create a child-rearing environment in a family-life community with house and lot, space for a yard and outdoor amenities, a school, playgrounds, and stores, with homes and well trained children who "hold standards similar to their own", i.e., to other residents, in a clean, quiet neighborhood separated from industry and incompatible uses (Perry, 1929/1974, p. 25).

Perry saw the four main functions of the neighborhood as: the elementary school, small parks and playgrounds, local shops at the edge of the neighborhood, and a residential environment. Other facilities, such as police, fire, government buildings, jobs, commercial areas, entertainment, and large stores were place outside the neighborhood or adjacent to it on arterial boundaries or in clusters between several neighborhood units (Perry, 1929/1974).

Part of the appeal of the plan is that it proposed a very logical physical arrangement and it incorporated important social goals (Perry, 1929/1074; Stein, 1957). The underlying principle of the neighborhood unit was "that an urban neighborhood should be regarded both as a unit of a larger whole and as a distinct entity in itself," or a unit in the "cellular city" (Perry, 1929/1974, p. 34, p. 31).

One of the most distinctive features of Perry's neighborhood unit was the use of arterial streets as borders to deter through traffic, to separate it from unwanted annoyances, and to provide a safe environment for children. While many of the social

goals of the neighborhood unit were shared by other neighborhood models, the neighborhood unit resulted in a different type of neighborhood; one that was inwardly oriented system and that had poor social connections with the local community. The consequences of this design were experienced in Radburn, NJ where the neighborhood never became a part of Fairlawn Township (Stein, 1957).

In agreement with social theories of his time, Perry believed the neighborhood was a social mechanism that could prevent antisocial behavior and provide a setting for a proper community, and that a well designed neighborhood could be the basis for a healthy community (Hall, 2002). Later studies by urban sociologists have shown that there is little connection between design and a healthy community (Barton, Grant, & Guise, 2003; Cooper, 1975; Crawford, 1995; Gans, 1968; Hassinger & Pinkerton, 1985; Keller, 1968, 2003; Krupat, 1985; McAndrew, 1993; Whyte, 2000). Community is a much different reality and is only marginally influenced by design. Perry's neighborhood unit concept, however, as modified and popularized by the Radburn model became the basic formula for postwar suburban expansion and remains a basic pattern for contemporary suburban communities (Silver, 1985).

Descriptions of the neighborhood from a sociological perspective emphasize the social components and functions of the neighborhood. A typical example is the work of Keller in *The Urban Neighborhood* (1968). Keller's aim was to "synthesize selected sociological evidence of relevance for physical planners in their work" (Keller, 1968, p. 3). She approaches the concept of neighborhood from an examination of the role of the neighbor and the process of neighboring.

The role of the neighbor, she states, is determined by shared expectations. A neighbor is expected to render aid and assistance when needed, to provide important information to others, to be friendly and sociable, and to maintain common standards of conduct and property maintenance. The role of neighbor can overlap that of friend or relative. While neighbors are typically those living in proximity or in a distinct spatial relationship, friends are selected by choice and relatives are determine by familial ties (Keller, 1968).

Neighboring refers to is the friendship seeking activity between neighbors and can result in close personal relationships. Neighboring takes place in a fairly small area, (Gans, 1962; Keller, 1968, 2003; Lynch, 1960; Whyte, 2000) usually within an area comprising a few houses or "no more than the street on which they live" (Keller, 1968, p. 98). For Keller, these small areas "may more properly comprise neighborhoods as they (the residents) see them" (1968, p. 98).

For Keller, the neighborhood unit of planners has "several, somewhat incompatible, objectives" (Keller, 1968, p. 121). It is, in her view, incompatible with modern urban conditions of diversity, mobility, choice, and more complex social interactions. Keller advocates the abandonment of the neighborhood unit as a planning unit and the use of a wider range of alternative planning models based on points of interest and specific nodal points such as residential and service areas. In effect, Keller is calling for a wider range of choice in neighborhood types and an adjustment in the concept of neighborhood to reflect the actual living patterns of residents and current social conditions (Keller, 1968).

Harry Gold (2002) describes the neighborhood as a type of territorial group, that is, a spatial and a social group. He lists six major functions of the neighborhood: 1) an arena for interaction; 2) a center for interpersonal influence; 3) a source of mutual aid; 4) a base for formal and informal organization; 5) a reference group; and, 6) a status arena.

John M. Levy (2006) refers to a study by Albert Hunter in Rochester, NY and Hartford, CT that showed the changing nature of the neighborhood. From 1945 to 1974 the use of neighborhood facilities declined from about 35% to 27% depending on the facility or service provided. During the same time, five or six measures of informal local neighboring increased, as well as the residents' "sense of community" thus indicating the changing nature but the continued importance of the neighborhood.

Someone who has a lot to say about neighborhood is Jane Jacobs (1961). She was an astute observer of what was important in a neighborhood and how the urban neighborhood functioned. Jacobs' idea of the neighborhood centered on its street life. A neighborhood, she said, was defined more by its streets that by it borders. "Successful street neighborhoods, in short, are not discrete units. They are physical, social and economic continuities…interwoven and overlapping" (Jacobs, 1961, p. 121).[2] She rejected the notion that neighborhoods were self-contained units.

Jacobs identified three types of city neighborhoods: the city as a whole, the large, sub-city districts, and the street neighborhoods. The three were interrelated and needed each other to function. The city level involved political connections of similar interests, sources of funding, and decisions about major city projects which affected the life of

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[2] "Continuities" is such a great word for describing the connections between street neighborhoods and the life of the city as a whole.

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districts and smaller neighborhoods. Street neighborhoods, or neighborhoods in the usual

sense, were units of informal self-regulation or self-management whose life focused in

the network of interconnected streets. Districts, which are often issue organized and may

not follow any particular boundaries, were intermediary levels that stood between the

political power of the city and the neighborhood street.   The essential factor of the

district was that they were "big and powerful enough to fight city hall" (Jacobs, 1921, p.

121).

Streets helped create a sense of turf and were the basic public space of a

neighborhood. They integrated activities and functions into a linear structure of diversity

and mixed uses that constituted the neighborhood. As one moved along the streets, the

neighborhood, in Jacobs' view, would change from residential to business to

entertainment and then back again to residential. The key to the neighborhood was

mixed and integrated uses (Jacobs, 1961).

"Streets" for Jacobs were a combination of streets and sidewalks, with the emphasis

on sidewalks. The function of the street and sidewalk was safety and public contact and

it gave her concept of "eyes on the street" the power to work. Street life offered a "public

realm were people could make contact while preserving their privacy" (Jacobs, 1961, p.

70), a very apt description of a semi-public or transitional space.   Sidewalks were

further supplemented by facilities. "(Sidewalk life) arises only when the concrete,

tangible facilities it requires are present" (Jacobs, 1961, p. 70). Jacobs criticized the

model development of Chatham Village in Pittsburg because there was no street life.

Although it had club rooms and other "social" venues, little sense of public life had

developed because it lacked, in her view, life in the public space. "Doing away with city streets (by the use of super blocks) … is the most mischievous and destructive idea in orthodox city planning" (Jacobs, 1961, p. 87).

Jacobs also questioned the use of borders in city planning. It was not borders that made a neighborhood but the activities going on in the streets. Borders, especially when they were huge traffic arteries or parks, often created barriers and defeated the cross uses occurring between the neighborhoods and the district. "The trouble arises when districts (or neighborhoods) are bisected or fragmented by borders so that the neighborhoods sundered are weak fragments and a district of sub-city size cannot (therefore) functionally exist" (Jacobs, 1961, p. 264).   Borders, in her view, should be seems in the city fabric that knit together neighborhoods and districts rather than separate them.

Jacobs was in good company in her emphasis on street and sidewalks. No less than Frederick Law Olmsted stated, "In planning a suburban village, roads and walks were of the first importance" (Beveridge, 1995, p. 117).   If the subdivision fails in its streets and sidewalks, "… whatever is beautiful in the neighborhood, whatever is useful … becomes in a certain degree disagreeable and a source of discomfort and privation. No matter what a neighborhood may be in all other respects, therefore, if it fails in these it must be condemned as unfit for a civilized residence" (Beveridge, 1995, p. 117). These are strong words from the father of landscape architecture, but accurate. In Olmsted's work in Riverside, IL (Figure 11, p. 42) and South Park in the Chicago area, the importance of the design of streets and sidewalks can be seen in providing a place for public encounter,

scenery that encourages walking and community, and connections to the local business area.

Although she was criticized for describing only one type of neighborhood culture and one not preferred by all cultural segments (Gans, 1968), Jacobs hits on many important themes. She recognizes the importance of streets in providing safety, a distinction between public and private space, and a continuity in the neighborhood area. The streets organized in linear fashion focal points and places of interest and social gathering. The streets provided for multiple uses and facilities that supported the adjacent residential areas. And they delimit an area for public interaction.

She differs from Perry in that she does not see the neighborhood as a self-contained unit. She recognized that streets at the edge of the neighborhood rather than being borders provide the primary public spaces for neighborhood activity and are more important than borders (Jacobs, 1961). Perry's use of arterial streets as borders and barriers indicates that he did not see the social importance of streets.

Jacobs put great emphasis on diversity of activity. Her descriptions of diversity relate more to main street areas of the neighborhood than to the residential or home street areas, although in Greenwich Village there was often little distinction between the residential and commercial areas (Jacobs, 1961). Her descriptions of street life reflect the fact that neighborhood life occurs at different levels of "street," the home street area or block, the neighborhood streets, and the community main street.
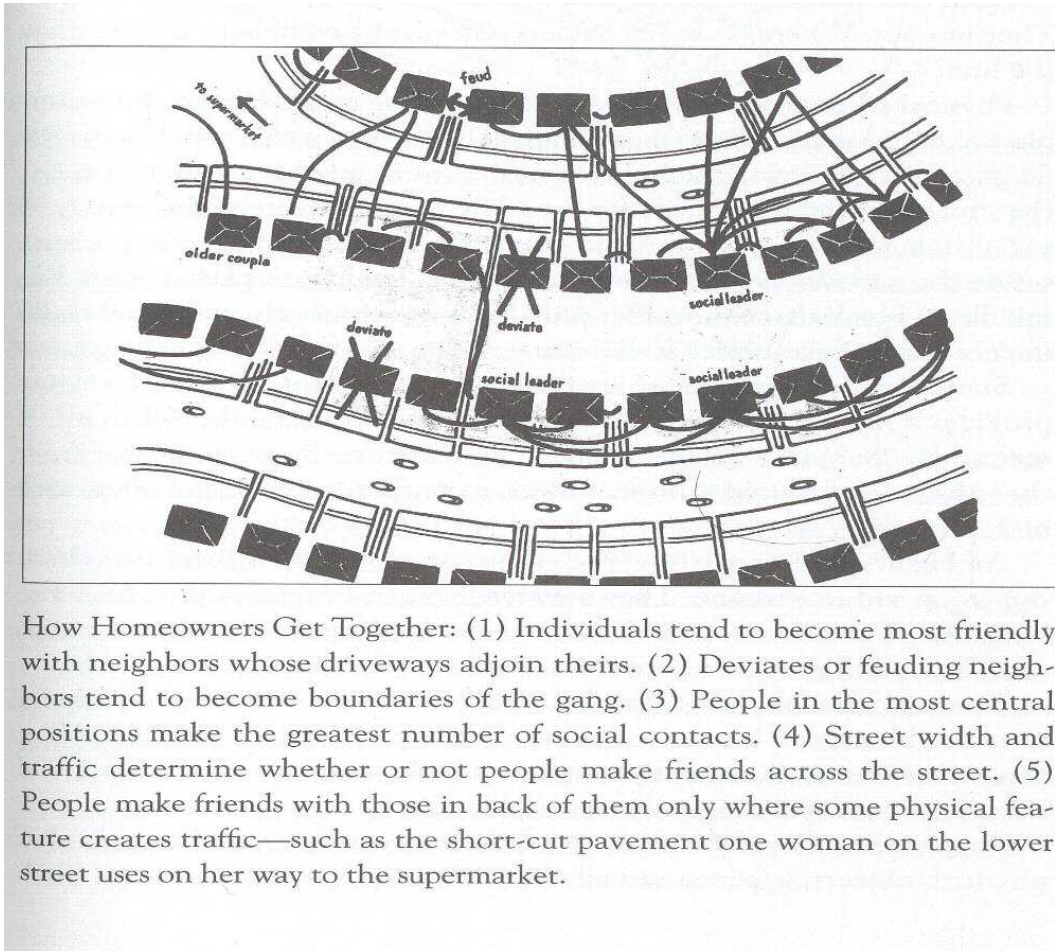
The descriptions of neighborhood by new urbanists and neo-traditionalists are more extensive because of the more complete program of design proposed by these movements

(Duany, 1991). Since they developed their ideas about the neighborhood from studying models of traditional towns and villages, this design oriented approach tends to yield a description in terms of practical design features. For example, the neighborhood is described by a discernable and geometrically defined center, a variety of dwelling types, shops and offices mixed into the neighborhood or at the center, a nearby elementary school not necessarily at the center, a grid-like and connected street pattern, a community of limited size and clear borders, and a self-governing community with resident participation (Duany, 1991).

One of the most distinguishing characteristic of this movement is the intent to provide a complete community and some form of social and economic integration. This, and the concept of acceptable scale, drives most of the design features. They have a "… belief in … the traditional town as the basic building block for human settlement" (Duany, 1991, p. 12).   Other key principles include a pedestrian orientation and a mix of housing types (Duany, 1991).

From the perspective of the residents, we find that they consistently think of the neighborhood in terms of a rather small area, consisting of no more than a block or two, and usually including the buildings that face a particular street, or an area delineated by cross streets (Lynch, 1960; Gans, 1968; Keller, 1968). This is also consistent with Lott's (2004) description of the neighborhoods of Augustan Rome which averaged about 100 meters in length and included the buildings that faced the street. Whyte's (2000) study of Park Forest, IL showed a similar pattern (Figure 14). Neighbors tended to form

associations along street lines, usually on the same block, or even in some cases down an alleyway.

How Homeowners Get Together: (1) Individuals tend to become most friendly with neighbors whose driveways adjoin theirs. (2) Deviates or feuding neighbors tend to become boundaries of the gang. (3) People in the most central positions make the greatest number of social contacts. (4) Street width and traffic determine whether or not people make friends across the street. (5) People make friends with those in back of them only where some physical feature creates traffic—such as the short-cut pavement one woman on the lower street uses on her way to the supermarket.

Figure 14: Neighboring in Park Forest, IL (Whyte, 2000).

This perceptual understanding differs from a political or geographic understanding of neighborhood in that it describes a much smaller area. The larger concept of neighborhood typically uses available features to establish the limits of the neighborhood, features that the neighbors may be only vaguely aware of (Lynch, 1960). These difference shows that the perception of the neighborhood is not the same for the planner and the resident.

The Village as a Model for Neighborhoods

Many ideas about what the neighborhood should be are based on views and opinions about traditional villages and towns. Neighborhood models having diverse configurations and plans, such as garden city suburbs, neo-traditional towns, and transit oriented neighborhoods, all use the traditional village or town as an example of a good community. From John Nash in Blaise Hamlet and Ebenezer Howard in his Garden City model (Hall, 2002), to Unwin and Parker in Hampstead Garden (Unwin, 1967), and even to the neo-traditional designs of contemporary planning (Duany, 1991), the traditional village has been used as a model for the neighborhood community.

But care must be exercised in using the traditional village as a model for neighborhood planning. The traditional village is a unique social structure in time and place, and its features and characteristics may not be applicable in a more industrialized, mobile, and decentralized society. Prior to the growth of cities during the industrial age, the traditional town and rural villages provided important personal and familial ties as well as necessary social and civic functions. In today's society there is a much greater self-sufficiency and freedom of association than in former times. And as Mike Biddupph (2000) argues urban villages that are so popular in England today may not be appropriate urban forms because today's complex urban environment requires a variety of urban forms, not just one type.

An increase in self sufficiency and mobility and a decrease in the need for mutual aid have changed the socially expected role of the neighbor and the nature of neighboring itself (Keller, 1968). Neighboring has become more of a choice than a necessity.

Socioeconomic changes alter the way people interact with neighbors as well as numerous other neighborhood functions such as travel characteristics, use of neighborhood facilities, and the way people get together. Today's neighborhood residents meet their needs from a wider spatial area frequently outside the neighborhood. Similarly, social and personal associations are more often based on work activities and choice of friends rather than familial or proximate relationships. As society continues to develop, it changes how we live and understand the role of the neighbor, neighboring, and the neighborhood itself (Keller, 1968). But it does not lessen the role of the neighborhood in urban life.

We must also consider the fact that the village, not as it actually was but as it is idealized by contemporary urban commentators, may be more of a myth than a reality. It is important if we intend to use the village as a model that we understand how village society functioned.   In a certain unexpected way, the village may actually exhibit more similarities to the contemporary urban neighborhood described by Jacobs (1961) than to life in the typical suburb.   In simple terms, the village was a civic and commercial center for rural areas and homesteads whose economic base was typically farming. Village life was fundamentally centered on trading, on secondary economic factors, and on making a living, not primarily on housing, unless it was a company town. Social interaction in a rural district occurred mostly "in town," in the village, on the main street, not in a rural neighborhood. The activity of the rural village was in many ways similar to the activity of a Hudson Street (Jacobs, 1961) with many of the primary economic factors being outside of town, or uptown, in concentrated areas, and the secondary economic factors

such as general stores, mills, railroads, grain elevators, barber shops, and other shops being in the town. The difference between Jane Jacobs taking the subway from Hudson Street to her job in midtown, and farmer Joe Jacobs living out on the farm and coming to town for market days and other special needs or social events is not very much. And the active social life experience in the village, especially on market or festival days, is more similar to Hudson Street than to the sparse interactions of Far-away Acres.

To relate a personal experience, my father lived in a small village consisting of a small country road and six to eight houses in County Mayo, Ireland. On market days, residents from many one road villages would bring their animals and produce to the town of Swinford. Swinford had a "Y" shaped high street lined with civic and commercial buildings such as banks, taverns, general stores, and business, professional, and county offices. On market days, the ends of the streets would be blocked off and the streets would be filled with animals of all types, and also with vendors, buyers and sellers, housewives, children, and countless others. People would buy and sell, visit, meet new people, see friends, catch up on news, and otherwise socialize from dawn till far into the night. Villagers learned to depend on acquaintances from the marketplace, as well as from their home areas. This pattern was typical for the traditional village in that the basic economic factors were the farms outside of town, and the town itself was largely a market place, a social fair, and the site of civic offices, schools, and secondary economic enterprises, not just a residential neighborhood with a few shop on the strip.

The openness of the village system and its economic and social function as a market place is often overlook by those who want to use the village solely as a neighborhood

residential model which has much more limited functions. The essential economic and social features of the village, its openness, its connectedness to the various spatial functions of the community in and out of town, and the public spaces for civic and commercial functions are nevertheless very similar, except perhaps for size, to the diverse multi-faceted urban neighborhood described by Jacobs (1961).

The designers of company towns also used the village as a model but were on more solid ground for doing so, and were perhaps more successful in that most of these towns were complete villages. They were centered on economic as well as social realities. But even these mill villages like many farm towns did not survive the social changes brought about by continuing economic, technical, and social change, and of course by the automobile (Crawford, 1995).

This does not mean that the village cannot be used as a model for neighborhood planning. In fact, it makes a good model if the entire village system is utilized and understood. It can easily be related to the needs of a particular neighborhood community. The multiple functions of the village should be understood as part of a single complex system that is also needed for a successful neighborhood. The study of villages can also reveal many important and unchanging characteristics of community that carry over into today's neighborhoods in spite of dramatic societal changes.

Neighborhood Types

Another difficulty in defining neighborhood is the almost unlimited variety and combination of neighborhood types. Brower (1996) for example, describes four basic

neighborhood types, and an almost unlimited number of combinations of these types. Yet for all the variation, the residents of cities and neighborhoods exhibit consistent patterns in both spatial and social behavior over time.   These repetitive patterns form an important basis for urban sociological and environmental studies. For example, Lott's (2004) study of the neighborhoods of Augustan Rome at one end of the spectrum, and the studies of Whyte (2000), Lynch (1960), Gans (1962) and Keller (2003) at the other, reveal similar patterns of association and neighboring. In both classical and modern neighborhoods the range of personal contact and neighboring usually extended about a block or two along the street which the residences faced. While greater mobility allows today's residents to extend their neighboring to other parts of the city, they still form friendship and neighborly associations within the same small area as did their predecessors.

Keller (1968) explains neighborhood differences as a function of socioeconomic factors. Neighbors with less income and less mobility are more likely to rely on each other and use the local facilities more. Better off and more mobile residents are apt to work, shop, and associate with friends outside the neighborhood because of a greater level of self-sufficiency and mobility (Keller, 1968). Nevertheless, for most neighborhood types, key physical elements still help create a sense of neighborhood identification, a sense of local meaning and belonging, and can stimulate local neighborhood interaction, even if residents pursue many activities outside the neighborhood. Each neighborhood yields its own particular set of social dynamics that will affect the proposed design of the neighborhood.

Elements of Neighborhood

Neighborhoods can also be understood in terms of their main elements such as the residential sections on one hand and civic and commercial streets on the other. The description provided by Lott (2004) of the neighborhoods of Augustan Rome shows that they were centered on the neighborhood commercial street. The plans of ancient cities such as Timgad and Miletus also show how neighborhoods and residential quarters were established based the configurations of the central commercial and civic streets (Figure 15 & 16).
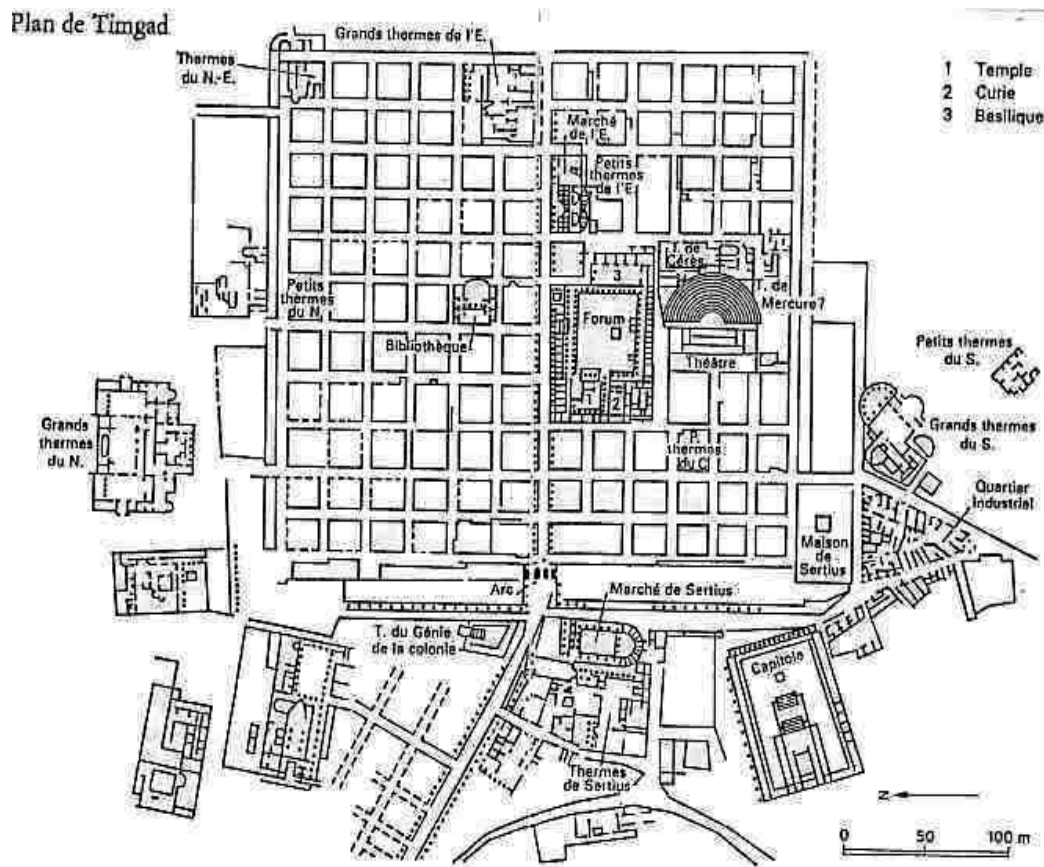
Figure 15: Timgad, North Africa. (http://robert.portelli.club.fr/historique/timgad.jpg)

Figure 16: Miletus. (http://www.mlahanas.de/Greeks/CityPlan.htm)
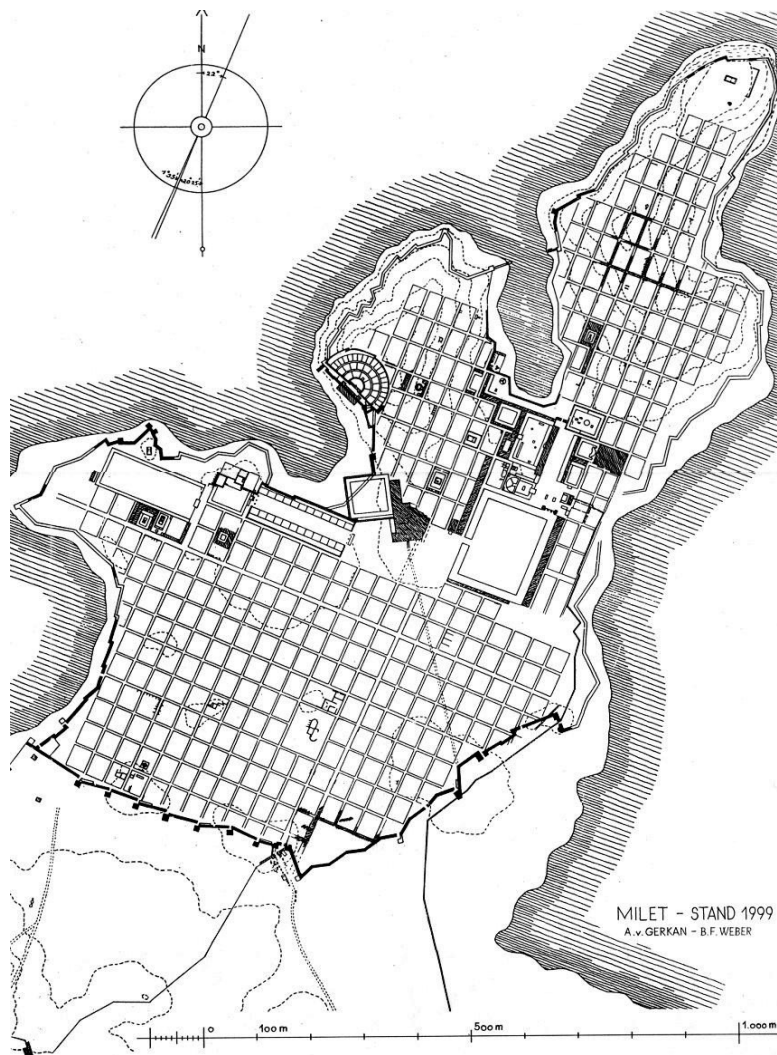
This pattern was also present in traditional villages and in early industrial and post-industrial cities where we see neighborhood activity springing up around local commercial and civic streets or a centralized area. On of the best modern examples of this pattern is Jane Jacob's description of Hudson Street which formed the center of her neighborhood's activity (Jacobs 1961). An important aspect to consider in understanding neighborhood is that a main commercial or trading street may actually function as the

focus of activity for more than one neighborhood (Jacobs, 1961). Nevertheless a main street is as much a part of the description of neighborhood as the smaller home areas and single residential streets.

In addition to the local one or two block neighboring areas and the local civic and commercial street(s), the larger geographic area which encompasses these two specialized areas, or perhaps a cluster of home areas, is also an important part of the concept of neighborhood. This is the area we usually think of as the neighborhood. And this is where the larger political and geographic conception of neighborhood fits in. While a neighborhood or a town many contain many street length family area units, and perhaps only one main civic street, the connecting and encompassing spatial areas form the larger description of neighborhood. Inside this larger political and geographic scale the smaller home street areas and centralized public spaces are connected together. Because of these interconnected realities, street connections take on a special significance in the understanding of neighborhood.

While the existence of local facilities is important in the life of the neighborhood, it may not always be a good way to define a neighborhood. Schools are frequently a strong neighborhood focal point, yet most residents travel outside the neighborhood to facilities, or schools, of choice. In contemporary neighborhoods, mobility, change, and rising incomes have led to a greater range of choice and self-sufficiency in meeting needs. Residents are much more likely to fulfill their needs outside the neighborhood than in former times, or than residents in a more restricted situation as for example when restricted by income or social stratification. The role of neighborhood facilities is much

different in contemporary life than in traditional settings, and thus the concept of neighborhood must be adjusted to current conditions (Keller, 1968).

In its most basic form, neighborhood involves three fundamental elements: territory, household facilities, and residents. These elements can be further described in terms of geography, ethnic or cultural ties, social cohesiveness, and facilities in varying combinations and degrees. While Keller (1968) prefers a general definition of neighborhood as a division of a larger spatial entity such as a city, she offers a typical definition that might be found in urban studies, one that stresses the perception of the neighborhood by residents and outsiders and its facilities and activities. Neighborhoods are "places with a name known to their inhabitants and smaller in size than a community, having common facilities such as a general store, a grist mill, or a school, and marked by social relations that include assistance and friendly visitation" (p. 88). While this definition is inclusive, it says too little about the relationship or functional ties to the larger urban entity.

To summarize the principle elements of neighborhood, we have the smaller street-blocks or home areas, the main civic and commercial streets, the larger geographic or perhaps politically defined areas, and the street connections that tie them all together. These elements form an existential concept of neighborhood, the neighborhood as understood by the residents, and as defined by it elements. It is not enough to think of a neighborhood just in terms of its boundaries or location. The intricate interaction of the larger and smaller sections must be considered in defining neighborhood. Neighborhoods can also often be related to more distant town functions going on around it. However, a

significant aspect of their identity is their dependant position in the structure of the city of which they are a part. They depend on both smaller and larger social and spatial entities; neighborhood is an interconnected reality, not a stand alone cell.

Working Definition

Most concepts of neighborhood fall into the three general categories illustrated above, namely physical, sociological, or user defined. Drawing on this short review of neighborhood concepts, certain basic features can be identified as important in forming a concept of neighborhood.

1. A physical place in the city: A neighborhood in its most basic sense is a specific place in the city. Perhaps the clearest way to see this is to again look at the plan of Timgad (Figure 15, p. 74) and Miletus (Figure 16, p. 75). The towns are clearly laid out along their principle streets. Cross streets create a town center by dividing the town into four principle "quarters." These form the residential areas of the town. The home areas are developed over time as the residents personalize and adapt the area for their use. Lott (2004) points out that the neighborhoods of Augustan Rome were similarly laid out along a principle street with a cross street designating its center, each neighborhood being an essential part of the city of Rome. Similarly, Jacobs' (1961) neighborhood of Hudson Street has its main street and is clearly a part of New York, not of some other place or a stand-along entity.

A loss of the relationship between the neighborhood and the city seems to have begun during the postwar era when many new suburbs were built with little or no

connection to city centers. The neighborhood unit concept provided a rationale for reducing this connection. The automobile further reduced the need to be closely connected to the urban core. In contrast, Unwin and Parker (Unwin, 1967) and Olmsted (Klaus, 2002) realized the importance of a connection to the city. Unwin provided a connection by locating the entrance to Hampstead Garden near a tube station. In Forest Hills, Olmsted had a new commuter train station built at the main entrance to the neighborhood.

The new self-contained neighborhoods were, in a sense, incomplete communities. The ever expanding urban areas also made it difficult for new neighborhood to be related to a town or community center. As urban areas develop more multi-nodal centers, outlying neighborhood many find it easier to connect to a town center.

However these changed continue to develop, it is essential to understand neighborhoods as part of a city or local community; otherwise they are in effect incomplete.

2. Multiple Types: Brower (1996) clearly focuses on this reality. Many neighborhood models try to present a single "best" neighborhood type (Talen, 2005, p. 2f.). But this is not realistic in contemporary society with so many different types of social groups and segments to its urban populations. The neighborhood concept must reflect diversity of neighborhood types.

3. Social Dimensions: The primary characteristics of a neighborhood are described by its proximate and social relationships. Proximate relationships are the duties expected of those living nearby. They include a duty for mutual aid, abiding by neighborhood

standards, and friendliness and sociability (Keller, 1968). Social factors involve issues of shared or common interests such as social class, income, occupation, ethnicity, and life-cycle stage (Gans, 1968). The social dimensions of a neighborhood are an important part of its definition.

4. <u>Physical Form and Scale</u>: While the physical design alone cannot create a community, it often defines a neighborhood in a physical sense. How the streets, parks, and buildings are laid out and work together in a neighborhood can support or inhibit neighborhood development and should be designed to closely fit the needs of each particular neighborhood.   The physical character of the neighborhood is also an important element of its definition.

Putting these features together in a preliminary working definition of neighborhood we have: a neighborhood is recognizable place in a city or local community with a distinct physical form and description in which residents live in proximity, have social interactions, and offer mutual aid and support. This definition draws together the main elements of neighborhood without confining it to a particular type.

Neighborhood and Community

It is important to carefully distinguish between neighborhood and community for several reasons. By equating neighborhood with community, we are asking neighborhood to provide functions that more properly belong to the community. We are asking neighborhood it to do too much, to meet too many expectations. We are confusing roles, roles of proximity versus social roles. We are asking the plan and the

design of the neighborhood to be responsible for creating the social entity of community. Community is a social construct; it is created and formed by people acting together in social groups, not by neighborhood design. Design may support or hinder, encourage or inhibit the development of community, but it cannot create it. Neighborhood on the other hand, is primarily a spatial entity. Social relationships in the neighborhood are defined by proximity and the resulting expectations and duties. Neighborhood design is about meeting the needs of the residents and providing the physical character of the neighborhood, not about creating community.

Our first task is to see how they are alike, and more importantly, how they differ. Neighborhood and community are often used synonymously but they represent two somewhat different entities. To further complicate the issue, the word community is used for a variety of social forms that are similar but not all related to the neighborhood or local community. Neighborhood does not always equal community.

The neighborhood is both a spatial and social reality (Gold, 2002). Neighborhood signifies a place that is recognized by residents and outsiders. The neighborhood has a social code and obligations based on proximity which informs residents of what is expected of them. The primary feature in neighborhood is proximity, people who live close together (Keller, 1968, 2003).

While community may also be linked to a certain spatial area and imply place, today we often speak of communities that have not spatial ties at all (Hassinger & Pinkerton , 1985). Community implies social organization based on common interests or goals (Felkins, 2002). A community may encompass several neighborhoods or sections of

town, or represent a certain demographic group spread throughout an urban community such as an ethnic group or a group consisting of a specific social class. In defining community it is often necessary to specify the nature of the connection, whether a community of interest, ethnic ties, or spatial.

Neighborhood and community may also overlap involving the same people or area. Certainly this is what planners and designers think of when they attempt to design for community. The difference lies in the extent or type of needs provided for. Neighborhood basically provides a place to live and certain basic services. A community provides for a more complete set of needs and activities and is in a sense a complete and self supporting social structure (Hassinger & Pinkerton, 1985). Neighborhood is to community in a similar way that neighborhood is to city. The city provides a more complete experience and set of facilities and opportunities than the neighborhood. The neighborhood is incomplete without the city.

The community is somewhere between the city and the neighborhood in providing for the needs of residents although the term community has been used loosely for both situations. Neighborhood does not always have all the facilities and features necessary to create community, unless it is large enough or co-terminus with a community structure such as a town or village.

Edward W. Hassinger and James R. Pinkerton (1985) say that while geographic factors contribute to the formation of community, communities also exhibit purposeful patterns of social interaction and intention. Communities are intended to meet most of the needs and interests of their members and should be somewhat self supporting.

Neighborhoods are usually designed to meet a smaller and more specific set of social or physical needs, but not all. Larger and more extensive needs and interests are met by being linked to a community or town.

Communities can also be located along a continuum of communal contact. Starting from residential "face-blocks" or home street areas as we have called them, we progress to the recognizable neighborhood with basic but limited services, then to communities which have more complete facilities, more voluntary organizations, and local institutions such as local government, social groups, and voluntary organizations, and finally to an expanded community at the district or city level (Hassinger & Pinkerton, 1985). This exhibits a continuum of relationships and involvement rather than distinct breaks. In other words, community is a matter of spatial features or place, of more complete facilities and services, of choices, and of the degree or amount of personal involvement. Some neighborhoods may be incipient or partial communities, while functioning perfectly well as a neighborhood, but they cannot meet all the requirements or "completeness" that is needed for community (Hassinger & Pinkerton, 1985). Hassinger defines a community as "as area in which groups and individuals interact as they carry out daily activities and in which regularized means of solving common problems have been developed" (Hassinger & Pinkerton, 1985, p. 25).

Patricia K. Felkins emphasizes that communities are generally "based on shared values and common goals" (Felkins, 2002). Community requires commitment, accountability, social norms and rules of operation, and flexibility in evaluating members' roles and performance (Felkins, 2003). Thus the community usually involves

some form of voluntary participation. Whereas the neighborhood does not typically require this level of involvement, it does on the other hand presume certain obligations based on the fact that people need to depend on one another when living near each other (Keller, 1968). A neighborhood that hopes to be a community requires a further step in the communal continuum.

We have often hear of a "loss of the sense of community" especially when discussing the suburb. This, however, was not what Whyte (2000) found in his study of Park Forest, IL or what Gans' (1968) encountered in his study of Levittown, NJ . Both writers feel that this criticism may be overdone.

For example, in his study of Levittown, NJ, Gans (1968) found that suburban residents usually develop many quasi-primary relationships in which "interaction is more intimate than a secondary contact, but more guarded than a primary one" (Gans, 1968, p. 40). He feels that suburbs have often been unfairly compared with life in the city because these comparisons are often based extremes. A true comparison would show the relationships between several settlement types, specifically, the inner city, the city neighborhood, the outer city neighborhood, and the suburbs. The differences between city, outer city neighborhoods, and the suburbs are slight and are due more to the age of the area and the cost of housing than to the particular settlement types (Gans, 1968).

Likewise, differences attributed to ways of life can also be misleading. Gans (1968) finds that neighborhood behavioral patterns are largely a matter of predispositions, and these in turn are mostly influenced by class and life-cycle stage. Thus, when people move to the suburbs they "live out" the predispositions they already had while living in

the city rather than changing their way of life. Suburbanites are a lot like the outer city residents that they once were (Gans, 1968). Keller (2003) found a similar pattern in her study of Twin Rivers, NJ.

This points to the fact that suburban or urban "ways of life" are not primarily due to settlement type but to other factors. And the loss of the sense of community, if it exists, may be due more to a misunderstanding of community versus neighborhood patterns and life styles, especially those due to social class. Differences in community social patterns may also appear when residents undergo a change in social status as occurs when lower income or working class people move into the middle class or when they move to the suburbs and adopt more middle class patterns (Gans, 1968).

One interesting fact that Gans observed in his study of Levittown was that "the community as a spatially defined unit of social organization is really not very important in the life of the suburbanite. The vital center of suburban life is the home and, to a lesser extent, the block and the network of friends" (Gans, 1968, p. 136). This does not mean that suburbanites do not have a sense of community or an interest in community. Rather, these suburbanites were making an important intuitive distinction between neighborhood and community. Although there may be fewer necessary or formal ties between neighbors in the suburbs, they do exhibit many quasi-primary relationships and feeling of loyalty to the area especially when it is threatened and "a considerable amount of mutual trust and mutual aid among people who did not know each other before they became neighbors" (Gans, 1968, p. 136f.). Gans feels that the concept of community as conceived by planners and public officials is quite different from the reality.

Keller's (2003) study of Twin Rivers, NJ provides and interesting look at the relationship of community and neighborhood since it was the expressed aim of the developers to build a new community. The development had a projected population of 10,000 and was substantially completed over a period of about five to seven years beginning in 1970. The key objective of her study was to observe the development of key institutions and a sense of community as the neighborhood progressed. Since Twin Rivers had no previous history, it had to create social institutions and forms of cooperation. A key question for the study was: How can a community be built from scratch? There was no ultimate answer to this question. What was discovered was that "there is no automatic unfolding of community" (Keller, 2003, p. 132) even though this was the expectation of the developers and the buyers.

In general, the residents were disappointed with the community life over the years. Newcomers thought community would be there, or would begin to form once they moved in. They did not realize that it had to be constructed by them or how long it might take. This experience is similar to many other new suburbs in the United States that had no pre-existing community and may partly account for the feeling of a lost sense of community. The community in Twin River was anemic and disorganized at best. Ultimately, Twin Rivers never achieved its "sense of community." The one exception was Twin Rivers Day, the annual "community" festival (Keller, 2003).

The question is why Twin Rivers never succeeded in creating a community? Keller does not provide specific answers to this question except to point out that the formation of community is much more difficult than the planners, developers, and residents

thought, and that it does not automatically form on the basis of a built environment. It is a social construct put together by the residents over a period of time.

It is here that one has to look again at the differences between a neighborhood and a community to see if Twin Rives ever had a chance to become a community. Twin Rivers exhibited characteristics similar to what Gans (1968) observed in Levittown, that the residents had little interest in formal elements of community, but did develop many quasi-primary social ties more in line with neighborhood social patterns. In hindsight, the expectations of the newcomers were too high because they had been encouraged to think that a new community could be formed since the project was designed as a community. Twin Rivers did not have nor could it provide the features necessary to become a full fledged community.

In a comparison of neighborhood and community, it is important to keep in mind the relationships between the home street areas, the neighborhood blocks, the main civic and commercial areas, and the level of services and facilities that are needed at neighborhood and community levels. A particular project might do well as a neighborhood but fail as a community because it can only provide a limited set of physical and social needs and services. Neighborhood design must first consider the needs and services that will be provided, and then how the neighborhood will relate to the city or main street areas of a local community. It is at the community level that people will experience the "sense of community."

NEIGHBORHOOD SOCIAL PATTERNS

Human behavior is complex and difficult to understand. Very often all we have to go on are possible connections between some conditions and some outcomes. Social scientists utilizing careful methods of observation, surveying, and testing, have determined that there are patterns to neighborhood behavior and connections to the environmental settings. An analysis of their methods is beyond the scope of this project. However, their findings and observations about neighborhood behavioral patterns can be helpful in reveling what links there might be to the built environment of the neighborhood. Whether these links are causal or associative, they can yield important insights that are helpful in the planning and design of neighborhoods.

The urban planner must deal with many issues that involve neighborhood social dynamics. Many of these issues have been considered by urban sociologists and environmental psychologists while researching related issues and reported in their findings. Since planners usually deal with areas that seem to be less related to behavioral studies, the work of the social sciences is often overlooked. .

The potential contribution of social research to an understanding of the neighborhood for planning purposes has yet to be significantly utilized (Gans, 1968; Keller, 1968). For this portion of this project, we have reviewed areas of neighborhood social and behavior research that have relevance to and could significantly enhance neighborhood planning and design. A neighborhood design program that is going to address user needs must bring these insights regarding the social dynamics of the neighborhood into the design program.

If one thinks about it for a while, it only seems logical that since neighborhood design is first and foremost about people, how they live, how they relate to others and to the community, what physical facilities they need, and what kind of environment is best, social patterns ought to be of primary importance to the design program.

In addition, there is a connection between planning and social science in that both deals with human activities. Neighborhood planning involves many areas familiar to the social sciences including economics, political science and policy, social class, and household patterns. In fact most planning schemes attempt to influence or improve social conditions and behavior in one way or another. If neighborhood design intends to meet the need of the residents and enhance their quality of life, it must better understand the aspects of human behavior that relate to design.

In this section, we will describe twelve significant social patterns that have relevance for neighborhood planning. Material for this part of the thesis has been gathered from urban sociology, environmental psychology, and from writers and observers in the fields of planning, design, and journalism that have contributed to this discussion. There is some overlap between these patterns since real world activities are seldom a matter of just one pattern. In the next section, we will discuss the implications for neighborhood planning and design.

1. Urban Cognition: Kevin Lynch is the pioneer in this type of research. The value of his research has been confirmed by subsequent studies that have authenticated the categories and concepts he described in his original study (McAndrew, 1993). Urban cognition is important because it helps create a clear spatial understanding of the

neighborhood. It also generates feeling of safety, security, and comfort, and produces more satisfaction and better use of the neighborhood area (McAndrew, 1993; Krupat, 1985).

Lynch describes five basic features used by the residents to create mental maps and an understanding of the city or neighborhood. These are paths, edges, landmarks and focal points, nodes, and districts (Lynch, 1960).

Paths are the routes along which people move. They can be streets, walks, highways, or transit lines. The closer the path connections are to right angles, the easier it is for the residents to negotiate and remember.

Edges are the borders of an area such as roads, waterfronts, and arbitrary boundaries. The residents are not always very clear on what the edges or boundaries of the larger geographic neighborhood might be (Lynch, 1960). Nor do they seem particularly interested unless there is some threat to the area (Gans, 1962). If there are clear physical features, like a major road or a river, they will utilize it in their perception of the edges of the neighborhood. Residents also recognize informal boundaries in their home street areas although the areas can be quite small, such as a single street (Keller, 1968), and may differ from official boundaries.

Landmarks and focal points are also important features for neighborhood identification. They are the buildings, fountains, and unique point type structures that can be used to indicate a location or place of interest. As Lynch (1960) explains, they help establish the identity of an area.

Nodes are the crossroads, squares, parks, and recognizable public spaces where features coincide. And districts are areas that are larger than a neighborhood. They are recognized as sub-areas of the city and they are usually defined by a name (Lynch, 1960).

These features make up the "legibility" of a city, or the way in which residents form a mental organization of the neighborhood or city. The physical elements of the city are important in cognitive mapping and in an understanding of the spatial relationships of the city.

In terms of large scale planning, Lynch states "form should be used to reinforce meaning and not to negate it" (Lynch, 1960, p. 46). Lynch call for a clear and comprehensive image of the city to include clarity of structure, "vividness of identity, strong symbols," and clustering and organization of meaning and association (Lynch, 1960, p. 119).

2. Neighboring: Neighboring is the process of getting to know and learning to interact with those living nearby. Neighboring usually happens in small areas of one or two blocks connected by streets, alleyways, or other paved surfaces (Whyte, 2000; Keller, 1968; McAndrew, 1993). Neighboring groups are limited in size. Whyte (2000) suggest as few as 12 families; Lynch (1981) considers 100 household as the maximum but 15 to 20 as more realistic. Figure 17 shows Whyte's (2000) diagram of neighboring patterns in a study of Park Forest, IL. Initial contacts were most often formed by the children in the area, and later the adults became friends. Whyte also noted that if the street was too wide, people may not get to know neighbors across the street.
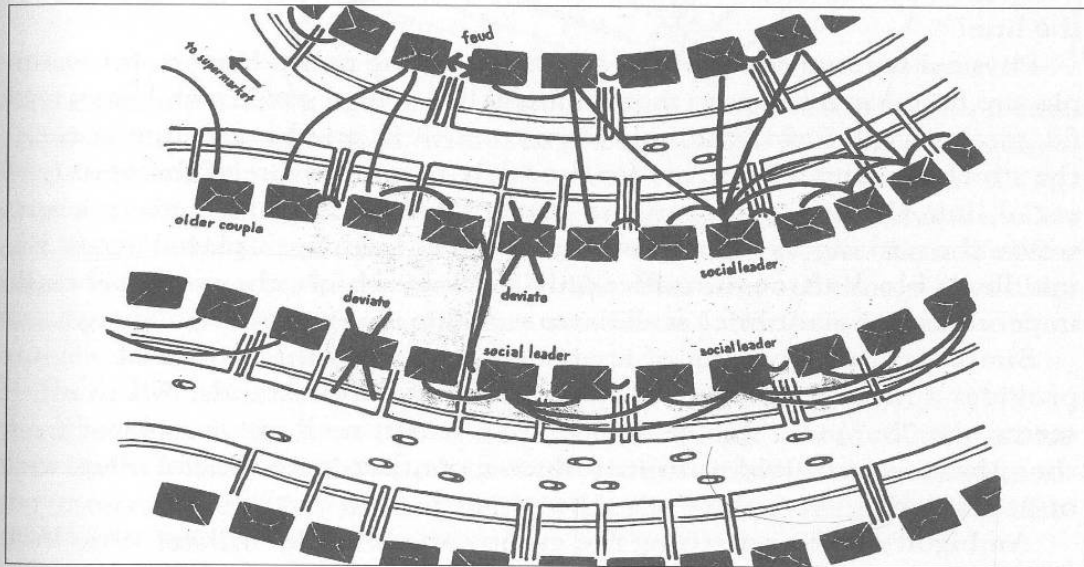
How Homeowners Get Together: (1) Individuals tend to become most friendly with neighbors whose driveways adjoin theirs. (2) Deviates or feuding neighbors tend to become boundaries of the gang. (3) People in the most central positions make the greatest number of social contacts. (4) Street width and traffic determine whether or not people make friends across the street. (5) People make friends with those in back of them only where some physical feature creates traffic—such as the short-cut pavement one woman on the lower street uses on her way to the supermarket.

Figure 17: Whyte's study of neighboring in Park Forest, IL. (Whyte, 2000)

Similar patterns where exhibited in Easter Hill Village, CA and Twin Rivers, NJ where people got to know each other in areas where the front doors where connected by a parking lot or paved street (Cooper, 1975; Keller, 1968). When there was no distinct connection between the front doors, they got together in adjacent or even remote parking areas.   In the important neighborhood model of Radburn people got to know each other in the paved service cul-de-sacs which were at the backs of the units instead of using the

front doors and front yards (Stein, 1957). The front doors of the units were too exposed to the public pedestrian traffic along the pathways leading to the inner park area.

Proximity does not guarantee that neighboring will occur and may even cause negative feelings if the parties do not get along (Cooper, 1975; Krupat, 1985). Neighboring requires a whole complex of values, interests, needs and expectations, not just proximity. As both Cooper (1975) and Keller (1968) reported in multi-year studies of Easter Hill Village and Twin Rivers proximity did not necessarily create friends or neighbors and often led to feelings of hostility.

Perhaps the most fundamental aspect of neighboring and neighbors is being able to rely on someone close by for aid, assistance, and help (Keller, 1968). As the parable of the Good Samaritan shows, this does not always come from someone nearby, but sometimes from an unexpected source. Other important aspects of neighboring are to communicate news and information and to establish rules of expected social behavior (Keller, 1968).

An increase in self sufficiency and mobility and a decrease in the need for mutual aid have changed the socially expected role of the neighbor and the nature of neighboring itself. Neighboring has become based more on choice than on necessity. Socioeconomic changes have altered the way people interact with neighbors. Today's neighborhood residents meet their social needs from a wider spatial area frequently outside the neighborhood. Similarly, social and personal associations are more often based on work activities and choice rather than familial or proximate relationships. In contemporary

society people are more apt to rely on friends and relatives than on neighbors (Keller, 1968).

A topic related to neighboring that could be explored by itself is voluntary associations. I have included it with a discussion of neighboring because it often leads to establishing social relationships and because it provides a vehicle for taking care of some neighborhood needs. Voluntary associations can have a significant influence on neighborhood and community and in many ways can be an important factor in neighborhood organization (Keller, 2003). In Augustan Rome, voluntary associations were used to organize the community religious festivals, fight fires, prevent theft, and distribute daily supplies of food and water. "They aimed to improve the quality of life within the neighborhood…" (Lott, 2004, p. 24). Lott (2004) lists voluntary associations as one of four factors that led to the formation of Augustan neighborhoods the other factors being topography, ethnicity, and occupation.

In Twin Rivers, NJ, the political and civic organizations never generated much support. But Twin Rivers Day, a yearly community festival, always had good support and willing participation even during the several months of preparation, and resulted in many friendships and further social interaction (Keller, 2003). Similarly, in Forest Hills Gardens the Memorial Day festival drew big crowds with wide spread participation for many years (Klaus, 2003). The sponsoring of festivals and fairs is one example of how voluntary associations can strengthen a community

3. Territoriality: Territoriality is a complex issue and includes issues of public and private space; size, distance and scale; anonymity, proximity, and crowding; and also

influences perceptions of open space and enclosure. In the natural state, it functions to reduce conflict between parties by giving them some separation and their own private space. It is part of a process of defining a place in which a family is able to provide for themselves (McAndrew, 1993).

Aggressive action to defend one's territory has often been cast in a negative light. However, territoriality is necessary for reducing conflict, for providing for safety, security, personal identity and integrity, and for an orderly framework to group life. "Territorialism refers to those behaviors a person uses to exert control over the activities that occur in that space" (McAndrew, 1993, p 121). "Privacy…is a boundary control process through which individuals control who they interact with, and how and when these interactions occur. Maintaining some degree of control over interactions with others is crucial to most people's psychological well being" (McAndrew, 1993, p. 122).

A loss of the ability to control one's "turf" results in a loss of a sense of community and of one's personal identity. "Territories are used to support and clarify social roles, to regulate interactions, and to minimize conflict" (McAndrew, 1993, p. 133).

Territoriality includes perceptions of private, semiprivate or semipublic, public, and temporary use spaces. In planning, the related concept is know as defensible space, which is public or semipublic space that easily lends itself to surveillance and territorial control (McAndrew, 1993).

Residents use decorations and artificial barriers such as small fences and walls to define their territory and to create visible lines of demarcation and control (McAndrew, 1993). In Easter Hill Village, residents were distinctly unhappy that the management did

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not allow them to alter their front yards. As a result, they lost the ability to define this area as a potential semi-private area in which interaction with neighbors could occur on safe grounds (Cooper, 1975).

Issues of public and private space are frequently at the heart of neighborhood and neighboring issues. If residents are unable to establish a clear line between public and private space, they will often "retreat to the house" and close themselves off (Cooper, 1975). Likewise, the process of neighboring requires some semiprivate or transitional space, such as a front yard or porch, where people can interact with and get to know other neighbors. Without this space, they will establish a line of protection which is often their front door. In Easter Hill Village, residents that lived on the smaller cul-de-sacs typically closed their front doors and drew the drapes to shield themselves from other residents. Since there was too little room for a transitional space, the front door became a line of separation. Residents felt there was too much unwanted contact in this area and that they were too close to other neighbors. Although there were more contacts in the cul-de-sacs, in a follow-up survey the residents reported that they preferred to live along the neighborhood streets where they had distinct front yards and could control access to their front doors (Cooper, 1975).

In a very interesting situation in Sunnyside Heights, NY, Clarence Stein (1957) contrasts two different configurations in a development he helped design. In the first part of the development, common spaces were placed behind the multi-family units. The residents however did not use the open spaces and frequently complained about noise and children. In the latter part of the project, the units where sited in a "U" shaped

configuration with a center court yard and rear parking (Figure 18).   A sidewalk running

around the inner courtyard separated the front entry space from the court yard. The

resident preferred the "U" shaped arrangement even though it was smaller and closer to

the units for two reasons. The "U" shaped courtyards had a clear delineation, created by

the sidewalk, between the public and semipublic space. And street access provided a

connection between the courtyard and the public realm, whereas the open spaces to the

rear of the other units implied an invasion of the semi-private rear areas (Stein, 19657).
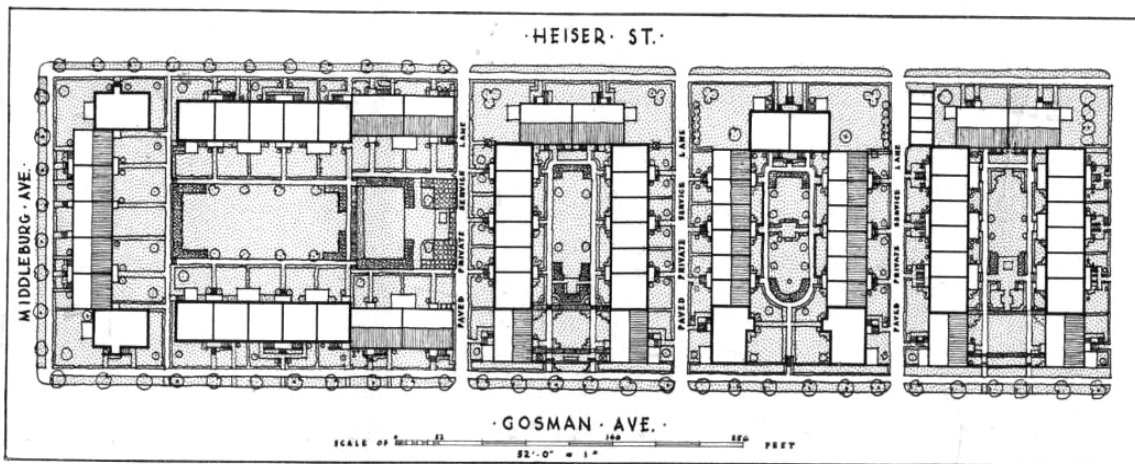
Fig. 11—Plan of part of a block with an inner court and three courts opening off the street, built in 1927.

Figure 18: Courtyards at Sunnyside Gardens, New York (Stein, 1957).

A similar pattern occurred at Twin River, NJ where the large open spaces were

seldom used and were considered dangerous by many (Keller, 2003).   The spaces were

too undefined and not well related to the pubic or private realm. They were not a clearly

defined area of the neighborhood.

The perceptions of residents regarding safety, public and private space, and the ways

they interpret their territory are critical aspects of the neighborhood plan.

4. <u>Preferences</u>: This category groups together several issues that could be studies in themselves. Each of these topics is similar in that it is an example of personal preferences somewhat limited or circumscribed by outside factors. Care must be exercised when relying on statements of preference which can change or may not actually agree with the choices finally made. Preferences that reveal behavioral patterns should be distinguished from the larger set of preferences that may contain unrealistic and fanciful longings. In this part of the discussion, we are using preferences to refer to those that are confirmed by the choices that people can and do make and that can be measured and compared to other alternatives. Preferences reported by social researchers vary somewhat from study to study, but there are some consistent themes.

One of the most obvious preferences is for a single family home in the suburbs. Although persons in certain life stages may prefer town homes or in town living to the suburbs, people typically prefer to have a place of their own (Crawford, 1995; Keller, 2003, Gans, 1968).

Gans (1968) lists five reasons why people move to the suburbs: raising a family, home ownership, more space, more privacy and independence, and a small piece of land to call one's own. In his study of Levittown, NJ, he found similar preferences, of homeownership, more space, neighbors like themselves, more activities and recreation, better schools, and more amenities such as shops and recreations (Gans, 1968).

Based on neighborhood satisfaction studies, residents have five main concerns: safety, a good school, control of traffic, regulation or control of strangers, and parks within three blocks or less (McAndrew, 1993).

Preferences also play a role in the use of neighborhood facilities.   Residents usually look for an elementary school, a grocery store, a nearby shopping center, a bus stop, churches, and a drug store in or near the neighborhood (Krupat, 1985). However, residents will by pass a neighborhood store, or school, if one that they prefer can be easily reached. For example, the shopping center at Twin Rivers never reached its expectation as a neighborhood venue since better and preferred shops were not that far away (Keller, 2003).

Providing neighborhood facilities is not assurance that they will be used. For example, in a new central district estate in Oxford, England, of approximately 1,000 families, the residents "disdainfully rejected" the new community center in favor of 16 local pubs (Keller, 1968). The social traditions and local gathering practices of the residents were apparently overlooked by the designers.

Sometime facilities can play a part in the development of neighborhood interactions. In Radburn the number one reason people listed for moving to Radburn was the pool followed by the school (Stein, 1959). In Twin Rivers the two most popular facilities were the library and the pool (Keller, 2003). The library it should be mentioned also functioned as a club room and general meeting place for political and social groups (Keller, 2003). Use of neighborhood facilities such as schools and recreational areas, can increase neighborhood interactions by providing "a common focus and topic of conversation that is an important part of the community's sense of identity" (McAndrew, 1993, p. 187). However, merely providing a facility does not guarantee its use or a more

vibrant community. The designer must carefully study the human social patterns and preferences of the particular community in deciding on facilities.

5. <u>Diversity and Homogeneity</u>:   For planners, diversity is a goal of major importance. Yet sociologists do not always see it as practical or desirable (Gans, 1968; Keller, 1968; Krupat, 1985). Gans (1968) points out that the diversity of immigrant society has been replaced by a diversity based on class and choice. Higher incomes have also allowed lower income groups to express cultural choices that are different from typical incoming groups. Homogeneity, in his view, is dependant on life cycle stages and class characteristics of education, income, and occupation and is not always a matter of race or ethnic background (Gans, 1968). Gans notes that similarities especially in age and class are necessary to develop friendships between families especially that would otherwise by heterogeneous, and that too much heterogeneity disrupts family life and weakens the ability to form friendships (Gans, 1968). Krupat agrees that homogeneity is necessary for "more intense forms of social interaction" (Krupat, 1985, p. 197).

In Easter Hill Village, which in the beginning housed several diverse social groups, residents preferred homogeneity in the home street areas, but diversity in the neighborhood (Cooper, 1975).   Residents had many good friends in most of the distinct social groups living in the project. But in the smaller home area settings, they preferred to live among people like themselves (Cooper, 1975).

Diversity is a complex issue. As Keller (2003) observed, "Planners typically aim at encouraging ethnic, income, and occupational diversity in a community. However, these goals are not easy to translate into practice and good intentions often flounder on the

realities of social distance and snobbery" (p. 124). In Twin Rivers, social and economic diversity was built into housing types and price. However the community developed its own numerous cliques and groups that tended to be small homogeneous gatherings centered on income, children, interests, activities, and political interests (Keller, 2003).

Gans reveals his own dilemma on this issue, "I tried to resolve my own conflict about the desirability of heterogeneity, which I valued mainly to justify the opening of suburbia to poorer and nonwhite people, and the success of homogeneity which I saw around me by proposing that planners design for homogeneity on the block and for heterogeneity in the larger community" (Gans, 1968, p. 130). Gans also indicates that the most important factor in creating social diversity is social class, not ethnic origin or regional differences (Gans, 1968). Gans further suggests that social problems typically rooted in unemployment and lack of access to opportunities are social problems and require social solutions. Creating artificial diversity will not solve these problems. Planning solutions are largely ineffective in solving social problems. Social problems, he asserts, require social solutions (Gans, 1968).

6. Travel Patterns: Transportation preferences and patterns are complex. They involve choices regarding where to live, where people work, preferences in shopping and entertainment, distance to desired destinations, choice of destination, access to transportation, car ownership, the cost of travel, and many personal choices and preferences. These preferences are also influenced by a complex of life style issues and attitudes including socioeconomic status, environmental and health attitudes, perceived safety, and the attractiveness and accommodating features found in or along the

transportation system itself (Kitamura, et. al., 1997; Wootton, 1998; Boarnet and Crane, 2001; Ewing, et. al., 2005).

In a study of San Diego transportation patterns, Boarnet and Crane (2001) found that non-work auto trips were generally limited to 20 minutes. Their analysis showed that non-work trips were largely a matter of cost as seen in terms of time. Thus, trips could be assessed in terms of distance and speed, a shorter trip at a slower speed being equivalent to a longer trip at a higher speed. If a destination which was farther away could be reached by expressway, it would be comparable, in terms of choice, to a shorter trip through town (Boarnet and Crane, 2001).

Their study was based on non-work trips which are becoming a more significant factor in auto use. It did not differentiate between destinations except in terms of general shopping areas. The San Diego area showed a unique characteristic in that trips were generally fewer than other areas studied. They attributed this to the fact that commercial areas were more concentrated near residential areas. This "…suggests that persons living in tracts with more commercial land use have both shorter non-work trip distances and slower non-work trip speeds" (Boarnet and Crane, 2001, p. 93).

John Wotton (1998) comes to a somewhat similar conclusion. He examines various reasons for travel, modes of transportation, and policies for reducing auto use. He concludes that the factor most likely to produce a change in transport patterns is "compatibility" between the locations of preferred destinations and the transport systems (in England). In other words, as things get more decentralized and spread out, more travel is evoked. But if the location and distance to desired destinations, and the access to

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alternative transport systems were better coordinated, we would likely see a reduction in travel and auto use (Wootton, 1998).

These studies highlight the importance of distance, time, and by implication location in transportation choices. As Wootton indicates, the more spread out things are, the more trips of all types become necessary. And conversely, as reported by Boarnet and Crane (2001), areas where commercial facilities are closer to households, fewer trips are reported (Boarnet and Crane, 2001).

7. Walkability: There is a debate about the influence of the built environment on walking, whether it is causal or associative. What is clear is that within certain parameters people walk more in traditional and neo-traditional neighbors than in typical suburban neighborhoods. Certain distance and design factors seem to make a difference. For example, people tend to walk more if the shops and stores are within a 5 to 10 minute walk or bike ride, and if the paths are safe, attractive, and accommodating. In addition to the design, a major factor, and the one we are most concerned with here, is that there is a strong, distinct, and largely unmet preference for walking (Handy, 2006; Rodriguez, Khattak, & Evenson, 2006).

A community does not have to be neo-traditional to be walkable, nor are all neo-traditional communities walkable. This is clear from Southworth's (1997) comparison of the streetcar suburb of Elmwood, CA and two neo-traditional neighborhoods. In Elmwood, access to stores and shops was more direct and closer that in the newer neo-traditional projects. "(T)he distances to many of the retail and service centers, especially in Laguna West, are too great to expect most residents to walk to them regularly. Thus,

for most residents, these communities are likely to remain auto-oriented …" (Southworth, 1997, p. 39).

Residents in walkable communities have about the same level of physical activity as those in typical suburban communities (Rodriguez, Khattak, & Evenson, 2006). In walkable communities, people obtain more of their physical activity in the neighborhood while those in the typical suburbs acquire it in the home or outside of the neighborhood. The most obvious difference between the two is that people in walkable communities have fewer auto trips. They seem to be substituting walking or biking for shorter auto trips (Handy, 2006; Rodriguez, Khattak, & Evenson, 2006).

The biggest limitation to the walkability of a neighborhood is distance, and therefore the time, involved. Walking trips, like auto trips, seem to have a time and distance limitations. They are generally limited to five or ten minutes, or about 400 to 800 meters walking, and about 800 to 1600 meters biking. "Our models point to increases in accessibility, particularly close proximity to potential destinations such as shops and services, as the most important for encouraging an increase in walking" (Handy, 2006).

In a study dealing with walking and biking to school, Reid Ewing finds that the critical factors are the distance and the perception of safety. As mega-schools get farther away, driving becomes the only option. School within in a 10 minute walk showed an increase in walking and biking. Sidewalks were seen as one important factor that improved the perception of safety (Ewing, Forinash, & Schroeer, 2005).

Whether causal or associative, walkable communities and neighborhoods seem to be tapping into a largely unmet preference for walking (Rodriguez, Khattak, & Evenson,

2006; Handy, 2006). Within certain time and distance limits, there is a natural preference

for walking.   Transportation choices as a whole seem to be influenced by the distance

and time needed to get to destinations, by the safety and suitability of the route, and by

the attractiveness and passenger accommodations provided by transportation system

itself.

   8. <u>Streets Life and Public Spaces</u>: One of the most enduring and characteristic of

social behaviors in the city and its neighborhoods is the street life and life in public

places. Jane Jacobs (1961) called the streets and sidewalks the primary public space. For

F. L. Olmsted, Sr. a successful suburb depended on the design of the streets and

sidewalks (Beveridge, 1995). The life of the classical neighborhoods of Augustan Rome

was also centered on the street (Lott, 2004). Similarly, small towns were known for their

street and public life. The examples are too numerous to mention (Figure 19).

Figure 19: Street Life, Luxor, Egypt, 2007

The activity of the street and its public places is simple and complex at the same time, and yet is easy to overlook because it seems to be such a natural consequence of urban life. This public life is based on our need to socialize. As expressed by Whyte (1980), the principle attraction seems to be other people.

The social activity of the street and public places is a behavioral pattern that seems to be strongly influenced by physical design and amenities. In Whyte's (2000) study of street life, he noted that what made Lexington Avenue in New York City interesting and attractive was its "messiness." It was a mix of buildings and activities without clear borders. And most importantly the people who lived there added a dimension to the

activity. It was congested, tables and chairs where on the sidewalks, widows shoppers were in force, and there were places to eat and places to stop and talk (Whyte, 2000).

In Whyte's (1980) study of the social life of small public places, he determined that certain combination of physical features seemed to attract more people and activity. For example, people preferred well defined places like edges and steps. And they preferred congestion and enclosure, to open space. They looked for sitting places, trees, and sun or shade depending on the season. Water features, food places, and places to sit and eat were important. "The relationship to the street is integral, and it is far and away the critical design factor" (Whyte, 1980, p. 570). Nearby shops and stores, and sightlines in and out of spaces were also important. In terms of indoor spaces, visibility from and to the street was a critical factor.

Although his studies were conducted in a large urban area, there are many useful behavioral characteristics that can be applied to most neighborhood main streets.   Some key factors are: the attraction of people for people, a sense of enclosure, the visual image of the place, the chance to mingle with others, and the connectedness of the public spaces (Whyte, 1980).   These features are also related to other behavioral patterns we have already discussed like territoriality, public and private space, and urban cognition.

If none are provided or felt to be suitable, people seem to create their own public places. In Easter Hill Village and in Twin Rivers people gathered in the parking areas, even remote parking areas, to meet and socialize rather than in the community center (Cooper, 1975; Keller, 2003). This was also evident to me in a recent trip to Luxor,

Egypt. Amid the multi-story and densely packed residential building of Luxor, one could always find some open places that were used for meeting and relaxing.

Figure 20: An impromptu Gathering Place in Luxor, Egypt, 2007

With respect to the neighborhood, F. L. Olmsted felt that streets and sidewalks were of critical importance (Beveridge, 1995). Neo-traditional designers have made it of primary importance even specifying the width and features of streets and sidewalks (Duany, 1991). However, street and walking activity will probably vary, according to Brower's (1996) findings, with the type of neighborhood. The more private the neighborhood, the less will be the street activity.

Public places also include what Oldenburg (1989) called "third places". After home and work, the third place fills an important social function and is of special relevance for

the neighborhood. Third places might be outdoor cafes, public houses, taverns, neighborhood grills, or any variety of hangouts where the primary activity is social interaction. The third place creates a "place" where friends and neighbors can interact and enjoy practical jokes and "silly" behavior in ways not allowed by normal or formal society. Oldenburg sees this behavior as a useful way for residents to get release from the tensions and conflicts of the day, and to also provide a useful interlude from family life. It gives family members a break from each other and a chance to refresh their common life (Oldenburg, 1989).

Street life in the suburban neighborhood is most often expressed by walking and neighboring, or if possible, journeying to the local restaurant or main street. Street life and walking in the neighborhood depend to a certain degree on well designed streets and walks (Beveridge & Rocheleau, 1995). Such factors as the control of cars, adequate sidewalks and sidewalk buffers, front yards or other semipublic spaces, and meeting places such as parks, squares, and 3rd places are all important elements to the cultivation of street life. Distances, as with auto use, are also important. Most people are only willing to walk casually for 1/4 to 1/2 mile, or 5 to 10 minutes (Barton, Grant, & Guise, 2003; Handy, 2006; Rodriguez, Khattak, & Evenson, 2006). In Whyte's (1980) study of urban spaces, the average distance people traveled to get to a park or plaza was 3 blocks.

Does design influence street life behavior? It does seem that this is one type of social behavior where design has a strong influence. Although people have a natural preference for socializing and walking, certain design features can encourage this preference, for example, the distance to a location and the character of the public space

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and street. Designers have a ready made human propensity that can easily build on. Street life and life in public places is probably one of the most fascinating and characteristic social behaviors of the human community.

9. <u>Social Class</u>: Social class permeates every facet of neighborhood life. It influences neighborhood types, use of facilities, travel patterns, neighboring practices, street life, diversity, even the perception of the world outside the neighborhood (Gans, 1962). Neighborhood differences are often a function of socioeconomic factors. Neighbors with less income and less mobility are more likely to rely on each other and use the local facilities. Better of and more mobile resident are more apt to work, shop, and associate with friends outside the neighborhood (Keller, 1968). However, the effect of social class goes much deeper that this.

In a more detailed analysis, Gans (1968) points out that neighborhood behavioral patterns tend to follow the values and predispositions of the particular social class of the neighborhood. He indicated three principle factors in social class: income, education, and occupation. Social class sets up opportunities and a range of choices in each particular neighborhood. In his study of peer group society in Boston's West End, Gans (1962) observed that the residents saw society as composed of three distinct groups: the peer group, the community groups that supported the peer group, and the outside word. The peer groups were composed of people that grew up together. In adult life, they were also sex separated and adult oriented. Once formed, the peer groups were extremely stable throughout life. The community groups were viewed in terms of how they supported peer group society, not in terms of the goals or purposes of the group itself.

The outside world included everyone not in the first two groups. Because of the peculiar way the West Enders related to the outside world, they were never able to understand the implications of Boston's urban renewal politics (Gans, 1962).

Gans points out several important distinctions between the working class as represented by the peer groups and the middle class. Working class families were adult oriented, preferred higher density living, and were much less interested in future goals and in neighborhood appearance. They did not move from place to place and if they did move they tended to move to a place where their friends or relatives were already living. The peer groups were much less dependant on outside community organizations since they tended to take care of each other in the peer group. For peer group society, a loss of "the sense of community" was not a peer group problem (Gans, 1962). This perceived "loss" is more closely linked to changes in social class as patterns of immigrant society are replaced or lost when families moved from working to middle class (Gans, 1968).

From his experience of living in the West End, Gans (1962) saw that planners often tried to impose middle class values and goals on the working class residents of the West End, goals and interpretations that did not fit the West End. Where planners saw a slum, the residents saw a strong community and a good place to live. Ultimately, The West Enders, because they could not properly interpret or understand the outside world, were never able to properly evaluated the threat that renewal posed to their way of life until it was too late (Gans, 1962).

10. Neighborhood Types: In a study of neighborhood, it is important to realize that not all neighborhoods are the same. Differences in neighborhoods have been described in

various ways depending on the perspective of the writer. For example, Francis McAndrew (1993) refers to Warren's lists of six types of neighborhoods based on a combination of three neighborhood social characteristics: interaction among the residents, a sense of local identity, and their connection to the outside world. Residential types are distinguished by the strength or weakness of each of the component characteristics. Gans (1968) tends to identify neighborhoods in terms of social class and stage of life. While Keller (1968) acknowledged socioeconomic differences, she does not develop a description of distinct neighborhood types.

Brower (1996) provides a description of neighborhood types that is both practical and useful for the planner. His description is based on observable features and recognizable characteristics of the neighborhood. He finds that there are four basic neighborhood types that can be clearly distinguished from each other: the urban center neighborhood, the small town or inner suburban neighborhood, the residential partnership, and the retreat.

Brower sets out a series of helpful concepts which he uses to determine, by way of survey and interview with residents, basic neighborhood types. The first is that a description of neighborhood, says Brower, involves three main features: ambiance, the look and feel of the physical environment; engagement, how residents interact; and choice, the ability of residents to choose and their range of choices (Brower, 1996).

He adds another critical concept that he calls "residential functions". Brower points out that the needs of households, such as employment, laundry, day care, groceries and supplies, cannot all be met in the home but are supplied by facilities outside the home to

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varying degrees depending on the situation of each household. "In our definition of neighborhood we recognize that residential functions extend beyond the neighborhood area into other neighborhoods and into non-residential parts of the city. One cannot think about a good neighborhood without thinking about networks of <u>connected</u> places" (Brower, 1996, p. 168, emphasis added).

Brower identifies three areas of neighborhood: the home itself, and two extensions of the home, the "home area," usually the block or street where the home is located, and the "neighborhood area" comprised of groups of home areas in a contiguous geographic area. He links these three areas of home, home area, and neighborhood area, to residential facilities to form three levels of neighborhood (Brower (1996):

1) the home setting: the block on which the home is located and nearby outside facilities;
2) the neighborhood areas: a cluster of home areas with connecting facilities; and
3) compound neighborhoods: neighborhood areas connected by shared facilities, such as a town or urban district.

Brower's concept of residential functions is very useful in explaining how the concepts of home, home area, neighborhood, and urban area, or community, are closely linked.

In order to conduct his survey of perceived neighborhood types, Brower (1996) developed a list of 33 neighborhood qualities by which residents described neighborhoods, although many of these qualities were repetitive and overlapping, as well as contradictory and fanciful. Brower sought to have respondents in the Baltimore area match these qualities with neighborhoods and districts that they knew. He then grouped

the neighborhoods into discrete categories that could be clearly and uniquely distinguished from each other. He concluded that there were four neighborhood types that were "distinctively different". These types are:

1) the urban center: very facility dependant with facilities usually in the immediately neighborhood, a high degree of social interaction, very open and diverse;

2) town or village like neighborhoods: common facilities usually along a main or high street, a sense of community, frequent face to face interaction;

3) "residential partnerships," or residential clusters: more unit and less facility dependant, residential facilities are outside the neighborhood, more home and family centered, more parochial and homogenous. An example would be a typical outlying suburb consisting mainly of homes and strip centers versus an older first ring suburb or outer city neighborhood with a centrally located shopping area;

4) residential retreats: Privacy is the key issue. The most unit dependant type, few or no connecting facilities, self-sufficient units, little or selective social contacts. Examples would be private country estates or in-town exclusive apartment buildings usually with a gatekeeper or doorman (Brower, 1996).

The number of personal connections and social interactions within these neighborhood types generally goes from more in type 1 to less in type 4, while the range of activities engaged in by the residents outside of the neighborhood generally goes from less in type 1 to more in type 4. This situation is typical, for example, with the residents

of in-town private residential buildings who have well chosen and sometime numerous and exclusive hangouts and haunts in the larger urban area. Even with such a categorization, the variety and types of neighborhoods are as unique as the types of residents themselves. No "one size fits all" is appropriate for the various neighborhood types (Brower, 1996). Each neighborhood reveals its own characteristics.

While Brower's list of distinguishing concepts and neighborhood types is very useful, it does not clarify the role of social class and life-cycle stage within neighborhood types. The role of social class is somewhat implicit in the types while life cycle stage is not a characteristic he found to clearly distinguish one type from another. A young family, for example, might be found in any one of the four types. Since his objective was to define neighborhood types in terms of recognizable characteristics, it does not specifically address social interactions. One does not find a particular neighborhood type in its pure form, however. Brower point outs that what one finds are countless combinations of these four types that account for differences in socioeconomic status, life cycle stage, and other distinguishing social patterns of neighborhood (Brower 1996).

Brower's ultimate appeal is for a multitude of neighborhood types, not just one single formula. In reviewing various neighborhood models, such as Howard's Garden City, Le Corbusier's Radiant City, Perry's neighborhood unit, Wright's Broadacre City, and the neo-traditional town of Columbia, MD, Brower concludes, "None of these planned cities offers a full range of neighborhood types. None of them includes center (city) neighborhoods" (Brower, 1996, p. 170).

However many neighborhood types there are or how they are distinguished is not as important as realizing that a neighborhood plan must be adapted to the needs, interests, facilities, and social patterns of the social group in question.

11. <u>Personal Meaning</u>: An issue that has received too little attention from planners and urban designers is the role of personal meaning in the social and spatial perception of the neighborhood. Meaning for the designer and for the resident is not always the same. The designer establishes meaning through the use of shape and form, but the residents establish meaning by making a place their own, by imbuing it with meanings associated with their journey through life, by changing the physical environment. The neighborhood must be able to be manipulated, changed, and decorated by the residents if it is to become theirs. According to Amos Rapoport, "… noticeable differences are a necessary precondition for the derivation of meaning" (Rapoport, 1982, p. 26). Within reason, each resident needs to add or subtract features and items of personal meaning and association in order to feel at home. The designer must make allowance for this by not over-designing or by restricting the "potentialities" for personal adaptations (Cooper, 1975; Rapoport, 1982).

How residents will do this is one of the great unknowns of planning. But there are examples. In Easter Hill Village, the residents were not permitted to change the front yards of their homes, but they could alter and use the back yards. The result was a great variety of original and highly personalized settings (Figure 21). The residents considered the back yard as one of their "most valued areas." A significant part of their social life
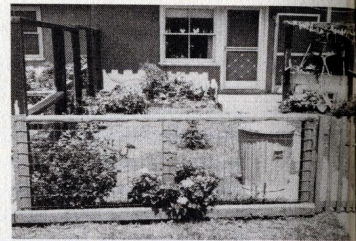
was conducted in these back yards. In contrast, the front yards showed little personal

attention (Cooper, 1975).

The back yards were considered by many tenants to be one of their most valued assets in terms of usable open space.

Some of the long-term residents had made attractive gardens . . .
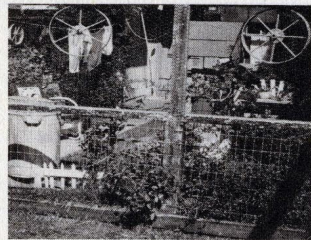
others used the back yard to lend a touch of individuality to their dwellings.
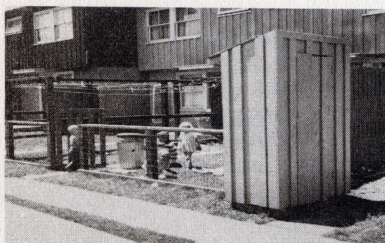
Many yards were used as play areas for young children . . .

and as storage places for family paraphernalia.

Figure 21: The back yards of Easter Hill Village (Cooper, 1975).

Another example is the village of Pessac near Bordeaux, France designed by Le Corbusier. Although designed in the modernist motif, the architect did design the units so that the residents could modify them as they desired. Ada Louise Huxtable (1981) quotes from his dedications speech in 1926, "But since men also have hearts, we have also tried to insure that men with hearts would be able to live happily in our houses" (p. 3). "They have," says Huxtable. The residents have used gardens and added traditional design features to the homes to record their own ideas about how a house should look and feel (Rapoport, 1982).

Figure 22: Pessac in the beginning.

(http://www.culture.gouv.fr/culture/inventai/itiinv/archixx/pann/p06.htm).

Figure 23: Pessac later (http://www.culture.gouv.fr/culture/inventai/itiinv/archixx/pann/p06.htm).

12. Mobility: Mobility is a somewhat different cultural pattern than the ones already

discussed. It is tied into transportation and land use issues in the larger urban area and is

influenced by technological changes in the society and by multiple changes outside the

neighborhood. The mobility created by the streetcar and the automobile resulted in many

of the first suburbs, and the automobile has often been an important consideration in the

planning of neighborhoods (Duany, 1991; Levy, 2006; Perry, 1929/1974). Mobility

involves significant activity outside the neighborhood and connections that take the

residents beyond usual neighborhood boundaries. It has a significant impact on

neighborhood life.

Whyte (2000) believed that we are a nation of transients. He attributed this phenomenon to the mobility of the managerial class of modern corporations. But the patterns of mobility are much wider than that. The principle reasons for moving are given as job related, new or better housing, and the establishment of new households (Gans, 1968; Spain, 1980).

Frequent moving puts stress on community stability (Keller, 2003; Whyte, 2000) and has several effects on the neighborhood. First, residents spend more time away from the neighborhood. Social contacts become more job and activity related (Keller, 1968). Second, neighborhood relationships must be reestablished when people move. This is more difficult for children who loose most of their contacts. Adults usually maintain at least some of their contact when moving. Neighborhood social organizations and voluntary associations can mitigate the strain of moving (Keller, 1968). When moving to a new neighborhood especially one that has been recently built, sociability increases in the early years and then subsides. New groups eventually form centered on specialized interests (Keller, 1968).

Neighborhood mobility can also result in changes in the neighborhood. At its beginning Easter Hill Village has a mix of ethnic and income groups. Over time however, more of the families were on public assistance and the image of the project declined (Cooper, 1975). The residents however still considered it a good place to live. Boston's West End saw several different immigrant groups move in and then move on into the American culture (Gans, 1962). With gentrification, old neighborhoods are not

just being repopulated but are being recreated in a different neighborhood image (Bruegman, 2005).

As the neighborhood and community are becoming more stressed by the effects of mobility, planners are looking for ways to reduce its impact. One suggestion by Luca Bertolini (2006) is that mobility, and its related facilities and multiple forms, be integrated into the neighborhood structure. He uses Naples as an example of efforts to come to terms with the necessity and presence of mobility. Hampstead Garden and Forest Hills Garden are also early examples of integrating public transportation into the community (Klaus, 2003; Unwin, 1967). There is no doubt that neighborhood planning will have to find effective ways of improving the connections between transportation and neighborhood life.

Summary: These twelve social and behavioral patterns should be considered in the design of the neighborhood model. There is no one single solution that will meet the needs of every social group. Perhaps the key issue in responding to these behavioral patterns is that each neighborhood plan should begin with a social survey. Once the social patterns of the neighborhood are understood, the designer can propose physical features and design solutions that support and enhance the neighborhood way of life.

FINDINGS

<u>Do Planning Models Fit Neighborhood Social and Behavioral Patterns?</u>

One of the purposes of this study was to determine if the principle neighborhood planning models that have been used as templates for urban planning fit the social and behavioral patterns of the neighborhood. In other words, do these models fit the way people actually use and live in neighborhoods? In some ways this question is answered by the fact that neighborhood planners rarely refer to or utilize the findings of neighborhood studies from the social science, although they acknowledge the importance of participatory planning (Gans, 1968; Keller, 1968). It is unclear these models might be different if social patterns had been considered. The starting point for most neighborhood models seems to be social theories about the ideal society and how people ought to live. Rarely do planners seem to start from observations of neighborhood life. One noteworthy exception was Raymond Unwin who stressed the importance of understanding the psychological tendencies of the people before beginning the design of a suburb or neighborhood (Unwin, 1932). One suspects that other early planners such as the Olmsteds and Earle Draper also based much of their work on their own observations of townspeople (Beveridge, 1995; Crawford, 1995; Klaus, 2003).

In a general sense, neighborhood social patterns can be accommodated in most of the basic planning models since social patterns have more to do with the design details of the plan than with overall planning goals. Possible exceptions might occur in applications of the neighborhood unit or with certain modernist principles such as superblocks and large undifferentiated open spaces. Aspects of these models have been called inconsistent with

contemporary urban life and social patterns (Jacobs, 1961; Keller, 1968). These problems have usually been revealed when residents change the design or use of the plan, or when a safe and normally functioning community fails to develop as was the case with some of the large urban renewal projects of the post war years (Krupat, 1985).

An example of how residents changed an intended design feature into something else occurred in Radburn, NJ. The designers had turned the houses so that they faced the pedestrian walkway linking the front of the houses to the inner park areas. The back doors of the houses faced the service cul-de-sacs. This design feature which was a major part of the Radburn plan did not work. The residents reversed the design. They blocked off the front doors and front yards with fences and shrubs and used the rear doors that faced the service road as the main entrance and as a semi-private transitional space where they met friends (Stein, 1957).

Another example occurred at Easter Hill Village. The front doors of units that faced the smallish cul-de-sacs were kept closed and drapes drawn because the front doors were too close to the cul-de-sac and there was no transition or semi-private space separating the cul-de-sac and the front door (Cooper, 1975). In these cases, negative results were easier to observe that positive ones.

Another problem in comparing the fit of planning models to neighborhood behavioral patterns is that planning and design often occur on somewhat different levels and at different times. In the initial stages, planners are looking at a wide range of overall goals and designers at more specific features like buildings, parks, public space, and transportation connections. Concerns about neighborhood social patterns have not yet

been considered. However, when the conceptual design stage begins, the neighborhood

behavioral patterns come more into focus. The neighborhood plan will be affected by all

these levels of planning and design. Since these design stages and planning levels are all

operating at different levels and at different times, the social patterns of the resident can

be easily overlooked. If the streets are too wide or the blocks are too long, for example,

the built form will run contrary to behavioral tendencies. The patterns of social life in the

neighborhood need to be considered at all planning levels even though the actual details

may be worked out at a later stage.

How the designed environment fits neighborhood social behavior can also be seen

from examples of conflicts or poor fits between the design and social behavior. Here are

a few examples:

1. Size and scale of the neighborhood: Planners and designers typically define the

neighborhood according to political or accidental boundaries, but residents see it as small

one or two block home street areas (Gans, 1968; Keller, 1968; Whyte, 2000). Here again

is Whyte's sketch of the pattern of social interaction in River Forest, IL (Figure 24).
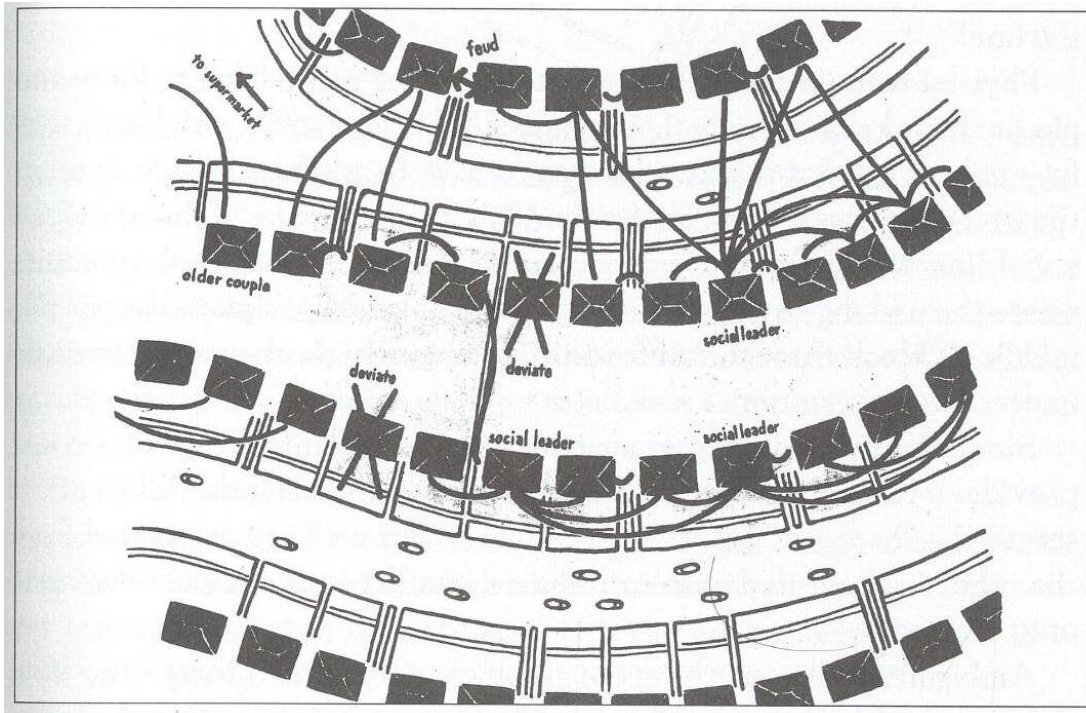
Figure 24: Whyte's sketch of River Forest neighboring patterns (Whyte, 2000).

2. Street society: Neighbors tend to gather and associate based on streets rather than on designed social areas. (Cooper, 1975; Gans, 1968; Keller, 1968; Lott, 2004; Stein, 1957).

3. Public, private and semi-private space: Resident look for clear demarcations of public, private and semi-private space when neighboring or using public open space. If private areas are not protected or separated from public areas, residents typically retreat to the house (Cooper, 1975). In addition, residents will not use open space unless there is a transitional semi-private space and a clear demarcation between public and private space (Gans, 1968; Jacobs, 1961; Keller, 1968; McAndrew, 1993 Stein, 1957).
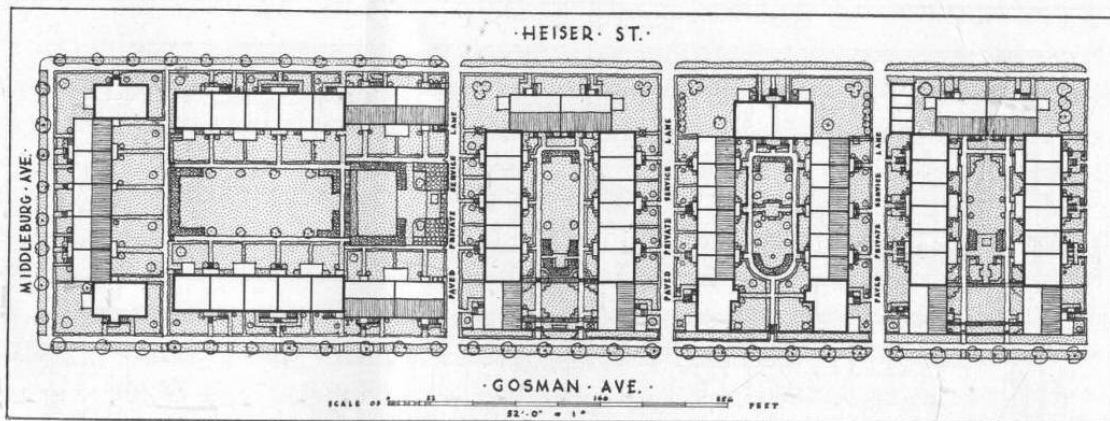
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Fig. 11—Plan of part of a block with an inner court and three courts opening off the street, built in 1927.

Figure 25: Courtyards at Sunnyside Gardens, New York (Stein, 1957).

Figure 25 is the plan for the last group of housing units built at Sunnyside Gardens, New York. This example combines issues of street access and open space. According to Clarence Stein (1957), who helped design this project and was a proponent of large open spaces, the three court yard arrangements that faced the street where very successful but the other layouts with open spaces to the rear of the units (and those with high-rise buildings and large open spaces surrounding the units not shown) were not, and received frequent complaints.

4. Children's Play Areas: Although children's play areas are a very common feature in new developments, most children do not use them. They prefer to play in their own yard or in the street (Keller, 2003; Mc Andrew, 1993).

5. Diversity: Residents like to have neighbors on the street block who are similar to themselves, but prefer diversity within the neighborhood as a whole or in the town's main street areas (Cooper, 1975; Gans, 1968; Keller, 2003). As Gans expresses it, "I tried to resolve my own conflict about the desirability of heterogeneity … by proposing that

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planners design for homogeneity on the block and for heterogeneity in the larger community" (Gans, 1968, p. 130).

6. Travel patterns: Travel patterns seem to be related to the cost of driving in terms of time, the preferred maximum trip time being about 20 minutes (Boarnet and Crane, 2001). Land use patterns often site preferred destinations in scattered locations and at distance that require excessive trips (Boarnet and Crane, 2001; Wootton, 1998).

7. Use of facilities: Residents do not use neighborhood facilities if they can conveniently drive to places they prefer. In Twin Rivers, NJ, the local shopping center area never succeeded. It was too easy to drive to a preferred store in a nearby location. Neighborhood facilities need to be related to neighborhood type and household functions (Boarnet and Crane, 2001; Brower, 1996; Keller, 2003)

8. Voluntary Associations: Residents are generally not interested in the political affairs of the neighborhood unless the neighborhood itself is threatened. On the other hand, community festivals, such as "Twin Rivers Day" in Twin Rivers, NJ, tend to be well attended and are a chance for the residents to mingle and to get to know each other (Gans, 1968; Keller, 2003; Lott, 2004).

9. Urban Cognition and Personal Meaning: Residents need to understand the connections and structure of the city as well as relationship of the neighborhood to the larger urban area (Lynch, 1960). And they need to be able to modify and personalize their own space and their neighborhood (Cooper, 1975; Rapoport, 1982). Edward Krupat (1985) observes, "... all too often the end product is designed down to the last detail" (p. 205) with little input from the users or little chance for them to adjust, change, or

personalize their environment. In Easter Hill Village, the residents valued their backyards more highly that any other space because they were able to use and change it to fit their specific purposes (Cooper, 1975).

<u>Open-ended Design:</u>

Open-ended design is frequently mention by observers and researchers of neighborhood life as critical to neighborhood design. It refers to a design which is capable of being changed or adapted by the users to meet their particular needs. This idea can be expanded to fit the neighborhood and town system as a whole, not only to the aspects of the neighborhood plan. An open ended neighborhood-town system allows for the neighborhood, which requires a level of privacy and protection, to be linked to the more public activity of the town. A neighborhood needs a town or community to be successful and to supply certain needs and activities.

An example of this type of open system would be Jane Jacob's (1961) Hudson Street and the surrounding residential areas that were part of the larger neighborhood. The street neighborhoods of most traditional towns and villages prior to the industrial age are further examples (Crawford, 1995; Garner, 1992; Klaus, 2003). A neighborhood in an open town system is directly connected to a main street or to a central core by the street system. Community activity is centered in the public spaces along the town's main street or at the core of a centralized town depending on the arrangement of the town. The edges of the neighborhood may or may not always be that clear. As Jacob's describes it, "Successful street neighborhoods, in short, are not discrete units. They are physical,

social and economic continuities… interwoven and overlapping" (Jacobs, 1961. p. 121). This type of open plan allows for a hierarchical linking or connection from the smaller street-blocks to the community areas. The interconnection of neighborhood and town, in contrast to a self-contained neighborhood, is an essential feature of an open and diverse neighborhood. In a self-contained neighborhood, residential activity is usually inwardly focused with the commercial and civic areas at the perimeter or randomly placed. With an open system, the energy and vitality of the commercial and civic areas are at the center, and the residential areas are arranged around and connected to it. There is an important interplay of energy and vitality back and forth between the neighborhood and the town or community (Clay, 1973). The enclosed neighborhood can never be completely self-contained since it relies both on outside facilities and services and on the larger community. As a separated unit, it risks becoming exclusionary. This does not mean that there may not be private or retreat type neighborhoods connected to the town space (Brower, 1996). The retreat is also a particular type of neighborhood that is appropriate for certain residents. But even retreat neighborhoods are not completely self-contained and need to be connected to the larger community because it provides essential services and opportunities.

Radburn is a good example of an enclosed type of neighborhood which is internally focused with only limited connections to the community around it, or in this case, to the township of which it was part. Stein (1957) reports that there was animosity between the residents of Radburn and Fairlawn from its inception.

A neighborhood that is part of an open community system is a more progressive and a more efficient neighborhood pattern. It can also accommodate a diversity of income and class types within its various sections. The streets and sidewalks form a basic organizing framework for the neighborhood as found, for example, in the plan of River Forest and in the plan of Forest Hills Gardens (Beveridge & Rocheleau, 1995; Klaus, 2003) This pattern, which has been used since classical times, is also a basic feature of more recent urban proposals such as Transit Oriented Development and new urbanist designs. It creates a more recognizable and healthy neighborhood identity, has better connections with the urban fabric, provides for neighborhood diversity and multi-use development, and is more open to the possibilities of modern society.

<u>The Role of Urban Design</u>

In the first part of this study we looked at the principal planning models and their goals. One consistent pattern in the models is that they all begin with some type of social theory about the ideal community, then set goals and formulate a plan to meet idealized goals. The goals that they develop are usually very specific and their purpose is to have a greater or lesser effect on the social life of the community.

Sociologists have questioned whether design can have any effect on the life of the community (Keller, 1968, 2003, Gans, 1968). Keller's (2003) multi-year study of Twin Rivers, NJ attempted, among other things, to determine what effect if any the built form could have on the community. The results showed that there was little positive effect but some negative. Design and the formation of community proved to be related but

somewhat independent entities.   Similarly Gans (1968) emphatically asserts that planning cannot solve social problems. In response to his experience in Boston's West End, Gans (1961) says that it is a common misconception of planners and neighborhood social agencies is that "cultural change can be induced by providing the improved residential conditions and adequate amounts of educational, recreational, health, and other facilities which they supply,…to saturate non-middle class neighborhoods with the facilities, programs, and skills they have developed" (Gans, 1962, p. 269f.). Planning can give order and sense to the city, it can address needs and user preferences, but it cannot solve social problems (Gans, 1968).

In an article on new urbanism, Harvey (2001) expresses a similar concern with respect to the neo-traditional movement. While it proposes to restore community it also seems to "perpetuate the idea that the shaping of spatial order is or can be the foundation for a new moral and aesthetic order…" (p. 2).

Yet it is obvious that design has at least some effect on the community. There are "real consequences of our plans in three dimensions…" (Levy, 2006, p.155). In spite of the outcome at Twin Rivers, Keller still believes that "Planning environments for a contemporary population involves crucial spatial decisions about what to place where and why" (Keller, 2003, p. 149). And Lynch claims that it is "easy to demonstrate we are made miserable or joyful by physical conditions as well as by social ones…." (Lynch, 1981, p. 100).

So what is the link between planning, design, and the social patterns of the neighborhood?   Further questions might consider what the business of planning is and

what it is not. What kind of society do we want to achieve and what kind is achievable?

How do we achieve our social and community goals? How does design address the

needs and behavioral patterns of the residents? It is obvious that we need some kind of

design strategy and even more importantly, a design philosophy. Lynch observes that,

"We have no adequate contemporary normative theory about the form of cities." And "If

we have some ground for understanding what cities are, we have practically no rational

ground for deciding what they should be, despite a flood of criticism and proposals"

(Lynch, 981, p. 99).

Brower (1996) begins to answer the question by proposing that while issues relating

to the physical qualities of a neighborhood are a basis for planning policy, attempts to

determine social behavior are not. He does not mean that social issues are not part of

public policy but that physical means are not effective for and should not be used to try to

influence social behavior. Gans (1968) would emphatically agree that physical planning

cannot solve social problems.

Is there a design strategy that respects the limited influence of physical form on

social patterns in the neighborhood and yet contributes to its quality of life? Without

getting into specific design solutions, observers and researchers of neighborhood life

have proposed some ways in which physical design might influence or improve social

life in the neighborhood.

Edward Krupat proposes the term environmental probabilism. By this he means an

environment that does not attempt to determine behavior, nor does it provide only loose

opportunities, but "it makes certain choices more likely that others" (Krupat, 1985, p. 12).

According to Krupat, this view involves an interchange between the environment and the individual.

Krupat (1985) also lists five ways in which the physical environment relates to people: 1) physical: the arrangement of buildings and structures; 2) functional: how the structures help people accomplish their purposes; 3) cognitive: how the city or the neighborhood "speaks" to the people; 4) affective or emotional: the feelings generated by the environment such as safety, fear, attachment, etc.; and 5) social: how the environment enables the individual to meet their social and interpersonal needs. It is the designer's job to address each of these factors. "What the urban designer or planner does attempt to do is to organize and arrange physical space in such a way as to facilitate certain forms of behavior and to allow for the satisfaction of human needs: (Krupat, 1995, p. 158).

Gans (1968) introduces a helpful concept he calls "effective environment." The physical environment, he says, is a "potential" environment, one which offers people the potential to meet needs or provide satisfaction because it is there, like a park or commercial area. The effective environment refers to the use made of the physical features by the residents. In real life, these two environments interact. However, the users' views and uses of the built environment may be quite different than that of the planners, as was the case in Boston's West End (Gans, 1962).

The residents of the West End saw the neighborhood as a family oriented, close knit neighborhood, but planners saw it as a slum (Gans, 1962). They overlooked the fact that the residents had taken what was an older less desirable immigrant section of town and

made it into a strong community, although it did not reflect all the same visual and community values as the downtown planners and businessmen. Because the effective environment frequently changes the meaning and use of the potential environment, it must be carefully studied to determine how what happens in a community might be different from what it looks like to the outsider (Gans, 1968).

Design and social behavior can also be related in terms of how the designed environment fits social predispositions. Gans (1968) describes "predispositions" as the hopes, dreams, and goals of individuals and families. In Levittown, NJ for example, the "design" enabled residents to realize their hopes for a better life that included homeownership, more space, more neighbors and friends like themselves, more activities, better schools, and more amenities. The design was a close fit to the predispositions of the new residents. Their predispositions did not change when they moved in; rather they were realized and expressed when they moved into an environment that provided what they had been looking for.

The role of predispositions and the "impingements" of daily life are what influences social behavior in the neighborhood according to Gans (1968). Planners should understand that design does not produce social change. If the planner hopes to induce social change, he or she can accomplish this "only if he attempts to understand and respect the existing predispositions and tries to find solutions that will take them into account" (Gans, 1968, p. 22).

How then should the urban designer proceed? Raynond Unwin stresses the importance of studying the existing town before proceeding with a design. "The

designer's first duty, then, must be to study his town, his site, the people, and their requirements…The greater part of the work (of the survey) must necessarily be done by the sociologist, the historian, and the local antiquary" (Unwin, 1932, p. 140 f.). Unwin is speaking of a situation in which the new neighborhood was most often an extension of an existing city at its edge, not unlike today situations. If we say that a strategy of design should begin with understanding the town and its people, not necessarily with the design itself or with a theory of the ideal society, then the planner "should remember that it is his function to find artistic expression for the requirements and tendencies of the town, not to impose upon it a preconceived idea of his own" (Unwin, 1932, p. 140). In other words, to produce a design that first of all fits the needs and situation of the neighborhood and the town of which it is a part. The planner or urban designer should serve the neighborhood and the community not the other way around.

It is here where an understanding of the social patterns of the neighborhood can inform the designer. Each neighborhood needs to be studied by itself. The social survey will indicate what type of solutions may and may not fit the social characteristics of the neighborhood. While there are other issues of importance that are part of the initial survey, the necessity and importance of understanding and responding to the neighborhood social patterns and the needs of the residents rather than the demands of an ideal society cannot be overemphasized. Planners and designers have obligations to the residents of the neighborhood to understand their ways of life, to support their activities and patterns of life, and to help them reach their goals and improve their quality of life.

This has not always been the case. An example is the community of Twin Rivers, NJ. The developers of Twin Rivers sought to create a community through good design. Twin Rivers followed many accepted design ideals and patterns such as cluster housing, central green spaces, restricted through traffic, and shopping along the main arterial road (Keller, 2003). The community struggled to establish itself over many years and seemed most united only when it celebrated Twin Rivers Day, or when it was fighting the board of directors. Keller's (2003) study showed how hard it is to establish community regardless of the design.

She observes:

Twin Rivers shares with other planned communities a certain set of priorities endorsed by the developers who create the physical shell first and let the community develop from there. The physical foundations are of course crucial, but, judging from the experience of Twin Rivers, there is no automatic unfolding of community sociability once they are built. (Keller, 2003, p. 132)

Commenting on discussion in the literature about the role of design in creating community, she says:

The naïve version of this view sees the arrangement of spaces and places as directly conducive to neighborliness or friendships. Sound physical arrangements, in this view, will contribute to the attainment of such values as cooperation, diversity, and sociability. More sophisticated discussion emphasizes the complicated interplay between design and behavior, and, while

they respect the significance of physical design, they insist on its dependence on social and cultural factors. (Keller, 2003, p. 132)

Design and the social relationships of the neighborhood have a complicated interrelationship. The design of neighborhoods involves a complex array of physical, aesthetic, and social factors. Often, however, it is the values of the designer that determine the design outcome without adequate consideration of the values and needs of the users. While urban designers need to be aware of a variety factors at work, they also need to allow for an interplay between the potential and effective environment and to be sure the design is open-ended enough so that the community can design itself over time.

CONCLUSIONS AND RECOMMENDATIONS

<u>Design Suggestions and Guidelines</u>

Observers of neighborhood social patterns have many suggestions about how a neighborhood should be designed. It is only natural that this should occur. Suggestions range from specific design issues to more philosophical concepts like personal choice. These ideas are helpful because they offer specific suggestions regarding built forms from sources that have studied neighborhood very closely for some period of time. Their design thoughts will broaden our own ideas and help fashion a perspective that links social behavior to built forms.

With respect to the size and configuration of the neighborhood, Barton (Barton, Grant, & Guise, 2003) and Gans (1968) recommend the use of one to two blocks home street areas, or home patches as Barton calls them, as a basic neighborhood module more consistent with the actual neighboring pattern. Barton recommends the use of landscaping to create the home patch units. Gans considers a neighborhood or 3,000 to 5,000 to be too big but points out that neighbors will eventually break down the larger patterns into smaller ones of the home block size.   Interestingly, Whyte (2000) recommend longer blocks to discourage excessive socializing in the home street areas.

Several authors recommend basing the design of the neighborhood on points of interest and on service and employment catchment areas rather than on a single facility like the elementary school ((Barton, Grant, & Guise, 2003; Keller, 1968; Lynch, 1960). Keller (1968) recommends establishing working radii and service hierarchies from these points based on street, town, city, and regional areas. Several authors also recommend

establishing clustered areas for services rather than having these uses spread out over a large area (Boarnet & Crane, 2001; Wootton, 1998). Whyte (2000) emphasizes the importance for small towns of creating concentrations of uses especially in downtown and civic areas in order to create more people interest in the town center area. Barton (Barton, Grant, & Guise, 2003) recommends using a linear pattern for these concentrations since this allows neighborhood to be more easily established on both side of and closer to the high street areas. Jacobs (1961) also points out the importance of establishing a diversity of uses and activities to create an active and interesting core to neighborhood life street life.

In his discussion of the neighborhoods of Augustan Rome, Lott (2004) describes how neighborhoods were organized around the "compitum" which was a well chosen location for the center of the neighborhood. They typically chose the intersection of two busy commercial roads which would ensure that the compitum would be an effective central place for both residents and travelers.

Jacobs (1961) points out that parks must be a natural extension of the surrounding neighborhood and its street life, not just a place to send the kids. The neighborhood park, she says "is a creature of its surroundings" (p. 98). In other words, the neighborhood activities must support the park; adding a park is no guarantee of improving the neighborhood (Jacobs, 1961). Gans (1968) has a similar observation about parks and open space. He says that "The planner's advocacy of more open space has also received little support, partially because the kind of open space he favors in not very important to

the people who are supposed to use it" (p. 21). As with Jacobs, he proposes that the open space fit the neighborhood social and activity patterns.

We have already discussed the observations of sociologists concerning diversity. Briefly, homogeneity on the street level and diversity on the neighborhood and town level seems to work better for the formation of social units and is preferred by the residents (Cooper, 1975; Gans, 1968). As Gans comments, diversity cannot be used to solve social problems and "...population heterogeneity cannot be achieved until the basic metropolitan area social problem is solved" (Gans, 1968, p. 177). Since homogeneity is based more on social class and income than on other features, increasing opportunities and access to good jobs and better education are some of the primary tools for improving diversity, not planning legislation (Gans, 1968).

More choice in neighborhood styles and types is a constant plea from observers of the neighborhood. Choice is viewed as a far more effective tool for improving neighborhood life and equality in the neighborhood opportunities than zoning rules or tinkering with neighborhood land use plans (Brower, 1996; Levine, 2005). "The site planner should not try to create a specific social patterns, but he should aim to provide maximum choice" (Gans, 1968, p. 162).

Perhaps the most universal and important recommendation is for open-ended design (Barton, Grant, & Guise, 2003; Jacobs, 1961; Keller, 1968, 2003; Krupat, 1986, Gans, 1968; Rapoport, 1982). Since it is not possible to solve all the design issues of the neighborhood in a single model or plan, and it is not possible to know how the residents will actually use the space or how the neighborhood itself might change do to migrations

and social change, it seems best to leave some things unplanned but with a basic framework in place.

It would be hard to add to this list of suggestions. But one can see that an understanding of neighborhood social patterns can easily lead to ideas of how to arrange it.

In light of the objectives of this paper, an important question to ask is, how do we go from social patterns to design features? If we are able to answer this question we might also be able to more closely compare neighborhood models and built forms with social patterns. There are two factors to help us make this connection. First, social patterns typically function within physical and spatial settings. Neighboring, for example, seems to work best within a one or two block area and to follow paved routes such as streets, alleys and sidewalks (Whyte, 2000). This makes the local home street area a very important setting for neighboring. Physical design elements can respond to this need.

The second factor is that built forms can encourage or discourage social patterns. In Whyte's (1980) study of public spaces, he determined that physical features played an important role in how the space was used. Cooper's (1975) study of Easter Hill Village also found distinct links between the physical environment and the social patterns. While it does not seem that physical design can independently produce social change, it can work with pre-existing social predispositions to enhance neighborhood life. The link between built forms and social patterns and predispositions can be used by the designer to create conditions in which the social patterns can function better.

A review of the social patterns discussed above shows that for each pattern there are a great many physical features that are part of the setting in which social patterns operate (See Appendix A.).   Some of these features, such as street design, play a role in more that one pattern. The list below, derived from the sociological descriptions of social patterns, shows how many physical features there are that play a role in the functioning of social patterns.

List of built forms and physical features that play a role in neighborhood social patterns:

1. street networks and patterns, street and sidewalk and design
2. points of interest
3. edges, borders, enclosures, steps, walls.
4. public places, plazas, squares, central places, gathering places
5. neighborhoods districts, home street areas, wards, sections, zones
6. nodes, intersections
7. enclosures
8. size, distance, scale, time
9. proximity
10. private space, public space, transitional space, line of separation, defended space.
11. street activity, fairs, festivals, people events, multiple activities
12. traffic, auto use, transportation
13. visual access, visual image
14. homogeneity, diversity, mixed groups
15. decorations, alterations
16. ownership, single family homes,
17. housing prices, income levels
18. class, income, education, occupation

19. facilities, schools, shops, stores, services

20. safety, strangers, home territory

21. transportation, modes, access

22. accommodations, attractiveness

23. choice

24. concentration of stores, shops, people, density

25. mixed uses, mixed activities, diversity

26. open systems

27. legibility, order, recognizable patterns

This list could be categorized into groups of similar features thus:

1. Time and distance; size and scale:

   a. walk: 5 minutes, 1/4 mile
   b. bike: 10 minutes: 12 mph, 2 miles
   c. car: 10 minutes, 30 mph, 5 miles; 5 minutes: 2.5 miles.

2. Pathways: streets, walks, trails, rails, air; movement, transportation systems

3. Spatial interrelationships: home street, neighborhood, district or ward, town, city, political division, region; parks, schools; public, private, and transitional spaces; proximity, enclosure, edges

4. Residential functions and facilities: employment, commercial centers, schools, government offices, public places, festivals, street life.

5. Places and Points of interest: central places, gathering places, nodes, intersections

6. Aesthetics: visual interest, accommodations, attractiveness, legibility, order, pattern

7. Choices and Preferences: values, household circumstances, shopping and entertainment preferences, safety, class distinctions, household income, housing pricing, diversity, homogeneity, neighborhood types

8. Change: gentrification, decentralization, suburbanization, mobility.

What these lists show is that neighborhood behavioral patterns are bound up with the built environment in such a way that physical features can promote or hinder behavioral patterns, and by implication, the quality of life in the neighborhood.   These patterns are distinct enough so that a program of design features that will enhance rather than inhibit the social life of the neighborhood can be developed.   If such a program can be used early enough in the planning process, it can alert planners and designers to the behavioral issues that they will eventually have to address as they develop the neighborhood design.

Design Suggestions:

We offer here a list of design suggestions in terms of the social patterns discussed above.   By using the patterns to frame our suggestions, we preserve the link between the social patterns and the design program.

1. Neighborhoods should be built around points of interest or linear main streets that promote diverse community activities in these areas.

2. Neighborhoods should be clusters of home street areas, approximately one to two street blocks in size, connected to each other and to the nearby community areas by street networks.

3. Cul-de-sacs should be limited in length, preferably no longer that one block, and built as much as possible as courtyards with median or sidewalk strips and well connected to the adjacent street.

4. Homogeneity is preferred in the home street areas and diversity in the neighborhood or community areas.

5. There should be a clear delineation between public and private space, typically accomplished by means of a sidewalk and/or a street, and a transitional or semi-private space in between such as a front or back yard.

6. Open spaces and parks must have a clear neighborhood function and should be discernable as part of the public areas.

7. Residential functions and commercial and service areas should be located in clusters with direct access from the neighborhood by foot, bicycle, auto, or other local means.

8. Neighborhoods should be connected to the main transportation system at points that are within 1/4 to 1/2 mile.

9. Neighborhood should provide walkable destinations to shops, stores, transport stations, and recreation. Pathways should be attractive and have accommodations such as benches, sidewalks, street trees, and buffers.

10. Neighborhoods should provide for an active street life appropriate to the level of the street setting such as home street areas, neighborhood areas, or the community main street.

11. Planners should provide for maximum choice in relationships, housing, and neighborhood types.

12. The neighborhood plan should be an open-ended design that accommodates neighborhood choice, personal meaning, and mobility and change and one that allows the residents to "complete" the neighborhood design.

As with all guidelines and goals, there is no automatic application. It takes careful attention to be sure each area is accounted for. How the designer will go from a guideline to a design or to a built form depends on the creativity of the designer. Our purpose here is only to describe what each social pattern suggests as important features to consider.

The Relationship between Planning and Neighborhood Social Behavior

The relationship between neighborhood planning and neighborhood social and behavioral patterns is complex. While there is a large amount of information about neighborhood and community life, it rarely seems to find its way into neighborhood plans. As Keller (1968) indicates there is a strong commitment in planning to ideal types. "Many planners advocate planned neighborhoods not because they have reliable evidence that this is what urban residents desire or need but because this conforms to certain cherished values they hope to preserve. Such values sustained by faith rather than knowledge, are not likely to change in the face of evidence, no matter how persuasive it be" (127f.).

The relationship between planning and social research is further hampered by the lack of communication between the two areas. Planners and urban designers need to

have at least a very basic understanding of the social and behavioral patterns in the neighborhood, the different types of neighborhoods, how home areas and residential functions are related, and the limitations of physical design in achieving social goals.

There are certain realities about community and neighborhood that also need to be understood. The first is that social patterns and design objectives often clash in neighborhood planning. The physical design often runs counter to the social dynamics of the neighborhood. The second is that community cannot be created through design. Design can create the possibility for community, but it cannot create community (Jacobs, 1961; Gans, 1968; Keller, 2003; Krupat, 1985). Community is created by people living in a certain place, and will not develop based solely on the built environment. The development of community is a long and difficult process (Keller, 2003).

Design cannot solve social problems which are at the root of most community issues (Gans, 1968). Social problems need social solutions. However, poor planning and design decisions can ruin a community as happened in the road building craze and the federal housing programs of the 1950s and 1960s (Jacobs, 1961). But even a competent design is no guarantee of a successful community (Keller, 2003; Jacobs, 1961).

Neighborhood and community are two very different realities. Although they are related in a number of ways, they cannot be substituted for one another. The major difference is that the neighborhood is a subset of the urban community, a part of the community. Community provides more complete services and opportunities than the neighborhood. It is not the purpose of the neighborhood to provide all the facilities and activities of the community. Since a community can include one or more neighborhoods,

these additional social aspects of community are provided at that level, not at the neighborhood level. Residents may instinctively realize this by not showing much interest in community affairs at the neighborhood level, while still having many neighborly relationships (Gans, 1968).

With the acceptance of the neighborhood unit, the concept of neighborhood changed from a traditional understanding in which neighborhood was an integral part of the city to neighborhood as a self-contained unit. The neighborhood unit sees neighborhood in a more mechanical way as a cell within the city mechanism. The modernist view of a machine like society and community has not produced the hoped-for utopia but instead has revealed "a deep misunderstanding of the function of the city" (Whyte, 2000, p. 336). It has been rejected in favor of more traditional views of society. However, most new developments are still being built as self-contained units with little or no relationship to a larger community or city (Knack, 1998; Moudon, 1990). Neighborhoods of this type cannot hope to provide that aspects of community life that residents require and look for. Only a more complete community structure can do that at a community level. Neighborhoods should be seen as an integral part of the city, as part of a continuous urban system, not as a self-sustained cell or unit (Duany and Plater-Zyberk, 1991; Howard, 1965; Jacobs, 1961; Lynch, 1960; Unwin, 1932, 1967; Whyte, 1980, 2000).

Policy Recommendations

This study suggests a number of policy recommendations. First, Planners and designers need to have an understanding of: neighborhood social and behavioral

patterns, the different types of neighborhoods, what residential functions are, and the limitations of physical design in achieving social goals. An understanding of social dynamics is essential to neighborhood planning.

Next, planners should collaborate with social scientists in the preparation of sociological surveys as part of neighborhood planning process, and not just be content with demographic studies which often reveal too little about the actual characteristics of life in the neighborhood. A sociological analysis of the neighborhood should be the first step in any planning effort, especially in projects that involve community development or neighborhood renewal.

Planning policy should be adjusted so that the appropriate type of policy is used or applied when dealing with neighborhood issues. For example, social problems require social policy rather than design solutions (Gans, 1968; Keller, 2003).

Policy makers need to understand how size, distance and scale affect the social structure of the neighborhood. Size and scale function differently at the local level than at the urban scale.

Planners and designers should understand the relationships between large urban settings, the in-between district areas, and the smaller urban neighborhoods. They need to recognize the role played by local main streets in large multinucleated urban areas.

Land use plans should incorporate the requirements of neighborhood residential functions in the spacing and location of facilities and services so as to create clusters of services and an intermingling of these clusters at the neighborhood scale, rather than strict land use separations (Brower, 1996; Boarnet and Crane, 2001, Lynch, 1960).

Planning schemes need to reflect a more dynamic view of the city that responds to activities, points of interest, and use patterns rather than just "land uses" alone.

And lastly, planning policy should allow as much as possible for open-ended design in the neighborhood plan. Open-ended design allows the residents to adjust and modify neighborhood features to fit their needs and activities, and creates room for the unseen and the unpredictable in neighborhood life.

Issues for Further Consideration

The initial long range purpose of this study was to begin to develop a catalog of alternative design templates for developers, neighborhood planners, and urban designers that could be used as patterns for the planning of new neighborhoods and for redevelopment of existing ones. The more immediate goal has been to define and describe neighborhood social patterns and to determine how the neighborhood plan might better accommodate these patterns. As part of this project we have also made some design suggestions based on neighborhood social patterns that can be used as guidelines in the planning process. In future, it would be helpful to develop graphic illustrations that could be easily used by developers, planners, and designers to formulate better neighborhood plans.

It is important to have some system of guidelines in order to keep attention focused on social factors that usually become critical in a later planning phase and are often times left out of the planning process because of more immediate needs and the attractiveness of more tangible goals like new highways and schools. It is much easier to think about a

road or a school than it is about urban cognition or patterns of personal meaning. Participatory planning cannot substitute for background research on the social dynamics of the neighborhood. Its goals, objectives, and methods are designed for different purposes. It cannot reveal patterns of life.

We have discussed some important social features of the neighborhood namely how the neighbors understand neighborhood, neighborhood types, and neighborhood social patterns. We can see from this brief introductory review that the neighborhood plan and neighborhood social patterns are not always the consistent. Not every fact of social life in the neighborhood has relevance for planning. Much work in analyzing the social context of the neighborhood has already been done, but is not being effectively utilized in urban planning. Observations and studies of city and neighborhood life have written and are available to the planner. Researchers in urban sociology have looked into many facets of the neighborhood that are relevant for neighborhood planning. Environmental psychologists have studied among other things the need for private personal space which has implications for the design of public and private spaces. But little use has been made of this work in planning. Planners are not taking advantage of these studies (Keller, 1968). It is obvious that more collaboration is needed between planning, design, and the social scientists. New research questions need to be formulated that deal with planning issues.

Contemporary neighborhoods and communities are increasing complex and are always changing rapidly. It is doubtful that they will ever reach a static state where they will sit still so they can be analyzed once and for all. It is a never ending pursuit, a

continual observation of people and places. Neighborhood planners and urban designers

need to be part of that pursuit.

APPENDIX

BEHAVIORAL PATTERNS AND BUILT FORMS AND FEATURES

1. Urban Cognition:

   o clear street and sidewalk patterns
   o points of interest
   o defined borders
   o plazas and public places,
   o nodes
   o legibility
   o districts
   o clear order
   o central places
   o enclosure

2. Neighboring:

   o size
   o distance
   o proximity
   o home street areas
   o street and sidewalk connections
   o private space
   o semi-public areas, front yards, stoops
   o street widths, street design
   o level of contacts, proximity
   o fair, festivals
   o traffic

3. Territoriality:

   o private space
   o transitional space
   o public space
   o distance
   o visual access, visual image, visibility
   o defended space, turf
   o decorations
   o line of public -- private separation

4. <u>Preferences</u>:

   - single family home
   - ownership
   - privacy
   - space: more, private yards
   - facilities
   - schools
   - parks
   - safety, strangers
   - store and shops

5. <u>Diversity and Homogeneity</u>:

   - housing prices
   - income level
   - home street areas
   - neighborhood areas
   - class differences

6. <u>Travel Patterns</u>:

   - modes
   - access
   - distance
   - time
   - cost
   - concentration of commercial stores
   - preferred shops and stores

7. <u>Walkability</u>:

   - distance
   - access
   - safety
   - time
   - accommodations, attractiveness
   - preferred shop and stores

8. <u>Streets Life and Public Spaces</u>:

   - street activity & people
   - concentration of shops and people
   - mixed activities

- accommodations: benches, eateries, food, water features
- street access
- traffic
- auto access
- visual contact
- gathering places, 3rd places
- street and sidewalks
- street design: buffers, multiple modes
- enclosure
- distances

9. <u>Social Class</u>:

- homogeneity
- home pricing
- income level
- home street areas, neighborhood areas, sections, wards
- diversity at neighborhood level

10. <u>Neighborhood Types</u>:

- residential functions
- home street areas
- facilities
- transportation access to areas outside the neighborhood
- choice

11. <u>Personal Meaning</u>:

- open design systems
- decorations & alterations
- choice

12. <u>Mobility</u>:

- connections with the urban environment
- recognizable neighborhood patterns
- access to transportation
- auto access and needs
- integration of movement systems

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