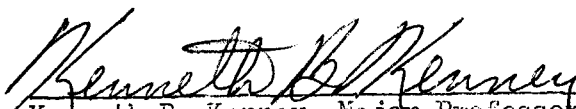
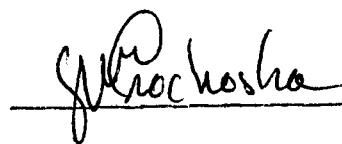


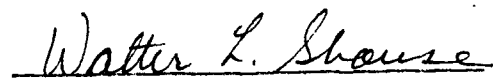
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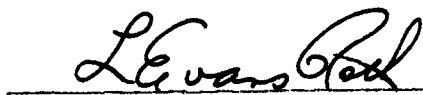

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THE EVOLUTION OF THE NEIGHBORHOOD UNIT CONCEPT
AS A PHYSICAL DEVELOPMENT TOOL OF PLANNERS

A Thesis
Presented for the
Master of Science in Planning
Degree
The University of Tennessee, Knoxville

Robert Levoy Phillips, Jr.

June 1979

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ABSTRACT

It should be the role of city planners to consider and evaluate every rational alternative available before making recommendations concerning a city's growth and development. Too often it would appear that cities grow by chance or irregularity without considering the consequences and impacts of development proposals. Similarly, the costs of urban expansion are often not fully realized until after the expansion takes place. This is unfortunate given the impact of disparate residential development on both city service provision and the comprehensive planning process.

This thesis investigates such a development alternative which was first proposed by Clarence Arthur Perry in Monograph VII of The Regional Survey of New York and Its Environs published in 1929. The thesis focuses on the elements which were integrated and refined by Perry in developing his highly publicized concept. Close examination of the origin of the elements embodied in the concept reveal that Perry's idea was actually a synthesis of several single focus planning concepts which were deep rooted in both English City Planning and Early American City Planning.

While the concept is often referred to in city planning circles, the neighborhood unit has realized only limited success as a development alternative. Perhaps this is due to a lack of understanding by city planners of the history and rationale leading to its formation. However, a few enterprising developers have chosen to utilize the concept especially as a developmental scheme for large scale new town developments. In these instances the concept has been desirable in terms of the developer, urban

service provision, and residential satisfaction.

This thesis is historical in nature and focuses on the background, development, utilization, and applicability of the neighborhood unit concept as a physical development tool. The research findings reveal that the concept is both theoretically rational and can be practically useful as a development alternative in expanding urban areas. It is the intent of the author to reacquaint planners and developers with a long neglected proposal in the hopes that city's will at least reconsider its applicability as a controlled growth alternative.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.	1
Significance of the Research Topic.	1
Purpose	4
Methodology and Organization.	5
II. SOCIALLY ORIENTED ANTECEDENTS OF THE NEIGHBORHOOD UNIT CONCEPT	7
✓ Charles Horton Cooley	7
✓ Public Open Spaces.	10
The Settlement House Movement	13
The Community Centers Movement.	20
III. PHYSICALLY ORIENTED ANTECEDENTS OF THE NEIGHBORHOOD UNIT. . .	38
✓ Separation of Pedestrian and Auto	38
✓ The Garden City Movement.	41
✓ The Garden City Association	50
✓ Raymond Unwin	60
Hampstead Garden Suburb	68
The Garden Suburb and Large Scale Real Estate Development .	72
Forest Hills Gardens	79
Chicago City Club Competition	86
Welwyn Garden City.	88
IV. THE NEIGHBORHOOD PLAN	93
Clarence Arthur Perry	93
The Neighborhood Unit Formula	99

CHAPTER	PAGE
IV. (CONTINUED)	
✓ Clarence Stein	112
Radburn: The First Neighborhood Unit.	119
V. CONCEPT APPLICATION.	126
Greenbelt Cities: Federal Application	126
The Levittowns	141
✓ Columbia, Maryland	149
Litchfield Park, Arizona	159
VI. BEYOND THE NEIGHBORHOOD UNIT	168
The Neighborhood Unit Reconsidered	168
Towards the Future: "The Growth Unit"	172
The Planners Role.	174
SELECTED BIBLIOGRAPHY.	178
VITA	186

LIST OF FIGURES

FIGURE	PAGE
3-1. Conceptual Plan of Ebenezer Howard's Garden City	45
3-2. Ebenezer Howard's Diagram of Regional Satellite Cities	48
3-3. Plan of Letchworth, England, Howard's First Constructed Garden City	56
3-4. Early Constructed Residential Section of Letchworth, England	58
3-5. Raymond Unwin's Diagram of Regional Satellite Cities	63
3-6. Town Plan of Hampstead Garden Suburbs	69
3-7. Plan of Forest Hills Gardens, New York as Developed by 1930	82
3-8. The Business District at Forest Hills Gardens, New York	83
3-9. A Section of Welwyn Garden City as Designed by Louis Desoissos	90
3-10. Layout of Earliest Southwest Neighborhood of Welwyn Garden City	91
4-1. Diagram Representing the Principles in Perry's Neighborhood Unit Concept	103
4-2. General Plan of Sunnyside Gardens Showing the Years in Which Various Stages of Development were Completed	117
4-3. The Radburn General Plan	121
4-4. The Plan of Radburn Which was Completed by 1930	124
5-1. The General Plan of Greenbelt, Maryland	135
5-2. Town Plan of Greenhills, Ohio	137
5-3. The General Plan of Greenbelt, Wisconsin	139
5-4. The Northernmost Third of the Levittown Project	143
5-5. Location Map of Columbia, Maryland	151
5-6. Conceptual Plan of Columbia, Maryland.	154
5-7. Reproduced Conceptual Diagram of Litchfield Park	161

FIGURE

PAGE

- | | |
|---|-----|
| 5-8. Reproduced Conceptual Diagram of Communities in Litchfield Park, Arizona | 162 |
| 5-9. Reproduced Conceptual Diagram of the City of Litchfield Park | 163 |

CHAPTER I

INTRODUCTION

I. SIGNIFICANCE OF THE RESEARCH TOPIC

This thesis represents a historical examination of Clarence Perry's neighborhood unit concept. The neighborhood unit concept is considered one of the most important community development concepts in the modern history of the city planning movement. However, few planning concepts have been so widely misinterpreted or misunderstood. Perhaps as a result of this misunderstanding, use of the concept has been limited as an urban growth alternative. This is unfortunate in that few planning concepts embody sounder planning principles than the neighborhood unit concept. Conversely, if planners were to gain a working knowledge of the principles embodied in the concept, perhaps it would more likely be employed as a physical development tool. This thesis attempts to trace the historical development of this concept to educate planners as to its purpose, use, and present status.

Few planners realize that the neighborhood unit concept as a physical development tool did not appear over night, rather it evolved. The elements embodied in the concept are based on well established planning principles. In fact, the concept is for the most part a synthesized culmination of several single focus concepts which were first integrated, and refined, by Clarence Arthur Perry in Volume VII of The Regional Survey of New York and Its Environs in 1928.

The concept reflects elements of at least three movements which occurred prior to its publication. One of the movements which inspired

the concept's formation was the "Garden City Movement." This movement inspired by Ebenezer Howard's "best seller," Garden Cities of Tomorrow, and the subsequent development of two English garden cities, Letchworth and Welwyn, resulted in the growing awareness of the social importance, economy, and marketability of residential development offering a more pleasant environment. In sum, the garden cities movement influenced planners to realize the importance of physical design based on social considerations.

The other two movements reflected in the neighborhood unit concept were social in nature and sought to halt the anonymity of the individual within the urban environment. These two movements, the social settlements movement and the community centers movement, were founded on the notions of sociologist Charles Horton Cooley. Cooley stressed the importance of "face to face" contact and association for complete social and psychological development of the individual.

In addition to the three movements which influenced the formation of the neighborhood unit concept, there were several single focus concepts aimed at social or physical reform. These reforms were stated as remedies in response to the growing social ills of a rapidly urbanized society during the Industrial Revolution. Besides social reformers, several notable planners were instrumental in influencing Clarence Perry's physical alternative to residential development. Incorporated in Perry's monograph are the innovations of such men as Ebenezer Howard, Raymond Unwin, Barry Parker, Fredrick Law Olmstead, John Nolen, and Charles Mulford Robinson.

Several noteworthy residential developments, constructed as experiments in sound development practices, served to contribute elements which

were later incorporated by Perry in the neighborhood unit concept. These developments stood in sharp contrast to traditional unimaginative development practices, high urban densities, and lack of adequate sunlight, air, and open space which had been predominant in large urban areas in the early twentieth century. Besides the early English garden cities of Letchworth and Welwyn, developments such as Hampstead Garden Suburb in England, Roland Park in Maryland, Riverside in Illinois, and Forest Hills Gardens in New York alerted planners and developers to the advantages which could be gained through sensitive aesthetic design. More important, these developments offered a variety of housing types and costs, ample provision of open space, as well as provisions for social and recreational needs without sacrificing sound construction practices.

Although Clarence Perry is usually given sole credit for the formation of the neighborhood unit concept, most of the elements embodied in his ideas were earlier established planning notions and development practices aiming to promote social reform and physical efficiency. Philosophically, these notions were established to promote democratic cooperation and participation for full development of the individual. Perry, through precise definition and enumeration, established a development pattern based on social considerations to provide physical order through clear definition of service area.

In the years immediately following its formation, the concept was immediately praised. The first attempt to construct a complete development based on the concept was by Clarence Stein at Radburn, New Jersey. Although the development was to be a complete new town incorporating the neighborhood unit concept as a basis for design, the project was terminated before completion due to the great depression. Nonetheless, the development

served as a model of the neighborhood unit concept proving its feasibility as a practical alternative for residential development.

Since its inception, the neighborhood unit concept has often become a major concern at the urban level. In fact, "the neighborhood still remains the basic measurement used by urban planners in evaluating elements linked with people and areas in the formation of a comprehensive community plan."¹ It would therefore seem that for planners to make rational judgements as to the concept's opportunities and constraints that they generally understand the history, components, and in general the utilization of the concept as a development alternative.

II. PURPOSE

The objective of this thesis is to trace the historical development and evolution of the neighborhood unit concept. In addition, the purpose of the thesis is to generally acquaint planners with the historical development and present status of the neighborhood unit concept. In order to effectively do so, the document examines the events leading to and preceding concept formulation, the actual development of the concept, examples of its use, and in general its opportunities for the future.

Although much has been written concerning the neighborhood unit concept as developed by Perry, few planners are actually aware of its historical background. This thesis will outline the origin, evolution, and use of the concept so that planners can fully understand its opportunities and constraints. With the changing notions of community development

¹Residential Development Handbook, (Washington, D.C.: Urban Land Institute, 1978), p. 115.

patterns, there is a need to determine the advantages of neighborhood unit as a tool to promote desirable, more efficient, and more livable urban environments. Once understood, planners will be better qualified to make rational decisions concerning the concept's use or abandonment.

III. METHODOLOGY AND ORGANIZATION

The primary thrust of this thesis document is historical. The methodology employed in preparing the document was a historical literature review concerning the background, genesis, application, and acceptance of the neighborhood unit concept. Presentation of the thesis is in terms of description.

The thesis has two main organizational divisions. Chapters II and III describe the events leading to Perry's neighborhood unit concept. These chapters include the events, concepts, and general planning elements which evolved to influence the concept's formation. The development of Perry's concept is revealed as a synthesis of several single focus concepts and ideas which were integrated, enumerated, and refined by Perry and incorporated to formulate the neighborhood unit concept. Included in these chapters are the significant events, reform movements, and planning innovations which occurred prior to the concept's formation shaping it as a social and physical design solution.

Chapters IV, V, and VI trace the concept from its publication to present times. Chapter IV presents the purpose and definition of the neighborhood unit concept as developed by Perry. In addition, the chapter describes the contributions and philosophy of Clarence Stein, who was the first to create a development utilizing the neighborhood unit as a basis for physical design.

Chapter V briefly describes the subsequent developments which were constructed based on the notion of the neighborhood unit concept. While this chapter includes various developments which claimed to be based on the neighborhood unit concept, the reader can readily see that there have been many variations and adaptations of the concept from its pure form. While these variations have served to physically promote a better environment, perhaps they have also led to the confusion associated with the neighborhood unit.

The final chapter briefly outlines the present status of the concept in planning today. While emphasis is placed on the opportunities for future use of the concept, it is not to be assumed that widespread utilization will occur naturally. Rather, it is hoped that a better understanding of the design elements and history associated with the concept will serve to inspire planners to encourage a more livable, efficient, and ordered urban environment.

CHAPTER II

SOCIALLY ORIENTED ANTECEDENTS OF THE NEIGHBORHOOD UNIT CONCEPT

I. CHARLES HORTON COOLEY

In the years preceding the formation of the neighborhood unit concept, social reformers and theorists sought to remedy the ills brought on by the Industrial Revolution. Advocates stressed reform in such areas as education, government, as well as in industrial working and living conditions. During the period from approximately 1895 to 1915, concern for humanistic values gradually replaced the Doctrine of Laissez-Faire and social thought was manifested in solving urban problems.

One of the leading social theorists of the early twentieth century who sought to promote social organization in urban areas was Charles Horton Cooley. Cooley wrote of the importance of human association and its relation to efficient social organization. Many of his notions served to seed planning thought in terms of creation of a physical pattern to meet the social needs of the community.

Cooley's writings stressed that the human personality was a result of individual associations. Similarly, Cooley held that, "that which makes us human wastes away in isolation . . . the most important spheres of intimate association and cooperation-though by no means the only ones are the family, the playgroup of children, and the neighborhood or the community group of elders."¹

¹Charles Horton Cooley, Social Organization: A Study of the Larger Mind, (New York: Charles Schribner & Son, 1909), p. 24.

Cooley based his treatise on the observation that men had always naturally grouped together into settlements and that man's associations were a result of these groupings. Cooley wrote that, "of the neighborhood group it may be said in general that from the time men formed permanent settlements upon the land, down, at least, to the rise of modern industrial cities, it has played a main part in the primary heart to heart life of the people." In fact, he felt that the neighborhood group had served naturally to promote the "face to face" association which was the most important ingredient in developing human personality.²

Cooley was concerned that many of the adverse conditions of the early 1900's were detrimental to human association and development. Similarly, he felt that the growing mobility of the population and spin offs of the industrialized nature of the times were serving to disrupt the traditional lifestyle and needs of man. He wrote that ". . . in our own life the intimacy of the neighborhood has been broken up by an intricate mesh of wider contacts which leave us strangers to people who live in the same house."³

Rapid urbanization and the resulting conditions in large urban areas distressed Cooley. He urged action to attack these adverse conditions before it was too late. However, he recognized the predominance of certain social trends which remained constant amidst the growing urban strain. Cooley wrote that ". . . in our cities the crowded tenements and the general economics and social confusion have sorely wounded the family and the neighborhood, but it is remarkable, in view of these conditions, what

²Cooley, Social Organization, p. 25.

³Cooley, p. 26.

vitality they show; and there is nothing upon which the conscience of time is more determined than upon restoring them to health."⁴ Clearly, Cooley was expressing his optimism for the survival of the institutions of family and neighborhood association which he felt so necessary for complete human development.

Cooley felt that only through the community life, utilizing common amenities, institutions, and organizations would the urban citizen be able to realize his full potential for development and self expression. Cooley speculated that, ". . . it seems probable that the plain citizen must look largely to the communal life to supply that chance of self expression which town residence and the specialized nature of industry have so largely restricted."⁵ Accepting the urbanization occurring in this country as inevitable, Cooley was perhaps looking for the concept of the neighborhood unit when he wrote, ". . . urban life is inevitable and instead of regretting the country the city dwellers had better make the most of the new situation, through playgrounds, public amenities, socialized schools, recreation centers, and in general, a more vital and human civic organization."⁶

Although Cooley was searching for communal design which would cater to the needs of the urban dweller, it would be several years before planning would make a conscious effort to weave the social element into urban design, at least in the form of the neighborhood unit. However, Cooley's notions influenced various social and physical reformers, who would eventually be influential in promoting physical design to enhance the social needs of urban residents.

⁴Cooley, p. 27.

⁵Cooley, p. 408.

⁶Cooley, p. 408.

II. PUBLIC OPEN SPACES

Partially in response to growing social pressure, planners slowly began to recognize the importance of parks and open spaces for proper human development. In fact, by 1906 several cities had established park systems for their communities. In this year, Fredrick Law Olmstead and John Nolen, two of this country's most respected planners, stressed that merely establishing parks, inefficiently planned in terms of location and need, would result in a loss of public funds as well as in community benefit.⁷

Olmstead and Nolen advocated that cities engage in careful site selection, design and variety of open spaces to serve specific purposes. The two planners stressed that civic designers should recognize that there are six types of open spaces for cities and that they should be careful as to fitting the type with the need. However, they also stressed that although these six types represented the normal requirements of large cities in respect to open space needs, that there is no system which is universally applicable for all cities. Rather, any city's park system should necessarily depend on the historical, social, and physical conditions of the city.⁸

The first important type of open space for cities are the streets, boulevards, and parkways. In establishing this type of open space, they urged planners to consider the plan, character, and appearance of the street.

⁷John Nolen and Fredrick Law Olmstead, "The Normal Requirements of American Towns and Cities in Respect to Public Open Spaces," Charity and the Commons, XVI, (June 30, 1906), p. 411.

⁸Nolen and Olmstead, "Normal Requirements," p. 411.

In addition, they said it is important to consider the purpose of the street, as different types are better suited to certain uses. Therefore, it is necessary to choose the correct type of street for the purpose it is to fulfill.⁹

The second type of open space mentioned by Nolen and Olmstead, city squares, gardens and public grounds, were the most common types found in cities. These types, the two stressed, should be small in size and integrated throughout the city. Similarly, they wrote that this type of open space provides agreeable views, promenades or resting grounds. They felt that in planning for these types of open spaces, trees, shrubbery, and direct and convenient footpaths situated along the lines of travel most used, would encourage fuller use of the facility. In smaller cities, they argued that these areas can be utilized simply for their aesthetic or pictorial value alone.¹⁰

The third type of open space, the playground, they felt, serves to provide areas for the population to exercise for the health of mind and body. Olmstead and Nolen argued that as cities get larger and become more dense, occupations become more confining and transportation becomes cheaper. As a result, in larger cities, populations get less exercise in daily life, and these exercise areas become more important for health. These playgrounds are designed to serve: the small child; school aged children; older boys and girls; men and women. Playgrounds, they emphasized, should be planned for the age group which is to utilize it. In addition, these should be ample, accessible, complete in arrangement

⁹Nolen and Olmstead, "Normal Requirements," p. 412.

¹⁰Nolen and Olmstead, p. 413.

and well maintained.¹¹

The fourth type of open space required by cities is the small or neighborhood park. This type of park, they wrote, is similar to squares or gardens, except for its extent. This type of park requires from ten to two hundred acres and internally displays flowers, shrubs, trees, fountains, statues, and sculptures. They urged careful design and planning of this type of park in order to emphasize its elegance and richness.¹²

The fifth type of open space normally required for cities is the large park. This type of open space usually requires two hundred to one thousand acres and is usually the chief feature of a city park system. The purpose of these parks, Nolen and Olmstead insisted, is to provide a pleasant country district within our urban areas to be used for driving or strolling by the population. Nolen and Olmstead were careful to warn that due to the cost of acquisition and the interference of the park with the street system, careful planning is especially required for this type of site selection. In addition, they felt that landscape architects should strive to make the park available and accessible without disrupting the park's natural area. Furthermore, any improvement should be for its own sake and subordinate to the unity of the area. In sum, the large urban park should function to provide scenery, natural area, and beauty to the urban setting.¹³

The final class of open space mentioned by Olmstead and Nolen was the great outlying reservation. This class of open space includes; lakes, rivers, mountains, beaches, and meadows. These open areas differ from large

¹¹Nolen and Olmstead, pp. 416-19.

¹²Nolen and Olmstead, pp. 419-22.

¹³Nolen and Olmstead, pp. 422-24.

parks in that they are: 1) a greater distance from the population; 2) generally cover a larger area; and 3) there is less formal construction required in the area. Finally, Nolen and Olmstead stressed that the value of these reservations is primarily for use by future generations. Therefore, acquisition of these outer reservations, the two planners felt, was of greatest importance to larger urban areas.¹⁴

Nolen and Olmstead stressed that cities needed to increase the number and variety of public open spaces. The planner's role in such a system, according to Nolen and Olmstead, was to accurately measure local needs and plan for the necessary service expansion. Similarly, the open space system should be based on the size, character, and location of each site. Above all else, the two men warned that in regard to planning for an open space system, ". . . energetic doing should be guided by clearer thinking."¹⁵

The work of Olmstead and Nolen helped to introduce planners to the social importance of open space in the urban environment. Similarly, they helped to clarify the nature of the various open space types. Finally, they stressed for planners to plan park systems for local needs and to respond by careful design and planning of the facility based on these needs.

III. THE SETTLEMENT HOUSE MOVEMENT

One of the earliest organized attempts in this country to combat the social ills associated with industrialization was the Social Settlement Movement. Social settlements, which originated in England in the middle

¹⁴Nolen and Olmstead, "Normal Requirements," p. 424.

¹⁵Nolen and Olmstead, p. 424.

nineteenth century, were established in several large United States cities in the latter eighteen hundreds to provide a central meeting place for the homogeneous residents of crowded urban neighborhoods. Although considered a vague movement by social scientists, the movement grew from six settlements in 1891 to over four hundred in 1910.¹⁶

Resident workers of these settlements were generally professional social workers, young college graduates, and volunteers inspired by "the impulse to help their brothers."¹⁷ The function of the social settlement was to provide sympathy, help, and hope to nearby slum dwellers at the neighborhood level. In addition, settlements sought to preserve humanistic and spiritual values in a dismal industrial society. Ultimately, the settlements hoped to reform urban society, externally, through internal neighborhood organization.

The movement stressed that the organic unity of life transcended class differences and therefore, the goal of the settlement house was to bridge the gap between the rich and poor, created by the Industrial Revolution. Jane Addams, who established the Hull House Settlement in Chicago, felt that settlements were based on "the theory that the dependency of classes on each other is reciprocal . . ."¹⁸ In further defining settlements, Addams said, "it is a philosophical movement that is an attempt to express the meaning of life in terms of life itself, in the form of activity."¹⁹

¹⁶Allen F. Davis, Spearheads for Reform, (New York: Oxford University Press, 1967), p. 16.

¹⁷Jacob A. Riis, "What Settlements Stand For," Outlook, LXXXVIII, May, 1908), p. 69.

¹⁸Davis, Spearheads, p. 36.

¹⁹Jane Addams, "A Function of the Social Settlements," a paper submitted to the American Academy of Political and Social Science, (May 16, 1899), p. 36.

Social settlements were not in themselves charitable organizations. Leonora O'Reilly wrote in 1899, ". . . that neighborhood work is not charity, but a recognition of the sociological fact that we are, none of us, mere atoms independent and apart from each other."²⁰ The movement, therefore, was one to deal with problems in the larger urban areas rather than to help others escape them. These problems were summarized by Jane Addams when she wrote that, "the streets are inexpressibly dirty, the number of schools inadequate, factory legislation unenforced, and hundreds of houses are unconnected with the street sewers."²¹

The social settlement movement prompted education reform, social research, and the attitude of reviving the vitality of the neighborhood. Similarly, many settlements felt their role should be that of a "social center for civic cooperation." In theory, the social settlement movement was based on neighborhood participation and cooperation. One writer wrote that the actual purpose of the settlements were to make ". . . the educator and the social worker, the minister and the doctor, the sociologist and social reformer, residents and participants in the neighborhood to which they were carrying their services."²²

Settlements focused attention on such problems as juvenile delinquency, drunkenness, and other problems confronting the stability of the home. Eventually, the settlement house became ". . . a social center, school, home making class, kindergarten, play and recreation center, informal housing and employment bureau."²³

²⁰Davis, Spearheads, p. 19.

²¹Davis, p. 27.

²²Svend Riemer, The Modern City, (New York: Prentice-Hall Inc., 1952), p. 415.

²³Davis, p. viii.

Generally speaking, the development of a social settlement underwent three stages. The first stage of settlement development can be described as "social impressionism." This stage served as a period of interaction, where settlements became acquainted with the feelings and problems of the neighborhood residents. This stage was a conscious attempt to link the life of the resident with the life of the neighborhood. "The capacity of understanding, appreciating, and sympathizing with the surrounding life is then the distinguishing mark of the early settlements."²⁴

The second stage of settlement development was that of "interpretation." In this stage, the settlements worked to perceive the needs of the neighborhood. In addition, more money was spent on administration and for the establishment of social clubs and education classes. Eventually, this stage led to the replacement of small settlement houses with larger, more functional buildings to better accommodate the neighborhood populations.²⁵

The final stage of settlement house development was that of "action." The action stage featured neighborhood participation and was based on the knowledge gained by the neighborhood group, through its own impression of the surrounding life. Eventually the home, or settlement house, became an industrial center where ". . . employers and employed, educated and uneducated, meet on friendly terms and come to an understanding of the human element that vitalizes them all."²⁶

The social settlement movement hoped to accomplish three social themes. The first theme involved ". . . the desire to make the entire

²⁴Mary Kingsbury Simkhovitch, "Settlement Organization, "The American City, XIV, (April, 1915), pp. 566-67.

²⁵Simkhovitch, "Settlement Organization," pp. 566-67.

²⁶Simkhovitch, pp. 566-67.

social organism democratic, to extend democracy beyond its political expression."²⁷ Before the period during the rise of the settlement, democracy was not applicable to social affairs. Similarly, political equality had done little to combat the social inequality which existed in this country before the movement began. Many of the people in the core of large American cities were poor, unorganized socially, and "living without corresponding social contact."²⁸ The city, as a result, was divided socially and economically between the rich and poor. Social settlements opened the way for members of one class in society to live in the midst of another class.²⁹ Through common intercourse of classes, the settlements hoped to foster a higher form of civic life.

The second theme of social settlements was the desire to ". . . share the human race life and to bring as much as possible of social energy and accumulation of civilization to those portions of human race which have little."³⁰ This theme was an attempt to establish an outlet for helpfulness and human fellowship for mankind. Similarly, it was a realization that the common bond of mankind was stronger than the things that make men different. The settlement allowed young college graduates to share in the betterment of mankind, as young people, feeling the need to put classroom "theory into action, responded readily to the settlement form of activity."³¹

²⁷Philanthropy and Social Progress, Seven Essays . . . delivered before the school of applied ethics at Plymouth, Mass. during the session of 1892, (New York and Boston: T. Y. Crowell and Company, 1893), pp. 3-5.

²⁸Philanthropy and Social Progress, p. 5.

²⁹Samuel A. Barnett, "The Settlement Movement," Charity and the Commons, XVI, (April-October, 1906), p. 187.

³⁰Philanthropy and Social Progress, p. 15.

³¹Philanthropy and Social Progress, p. 17.

The third theme of the social settlement movement was "the renaissance of Christianity," which stressed its humanitarian aspects.³² This theme was based on the notion that Christianity must be embodied in the line of social progress. Simply stated, it was a movement to make social services available to the poor in the spirit of Christianity. This revival of Christianity in the name of social progress was based on the proposition that ". . . man's action is found in his social relationships in the way in which he connects with his fellows, that his motives for actions are the zeal with which he regards his fellows."³³ Therefore, the cause of the settlement worker was humanity, with emphasis placed on better conditions for the poor. In sum, the settlement movement was an experimental effort to deal with problems which arose in larger urban areas.

Settlement houses worked to cure many of the social and physical ills which confronted the urban population. Among the improvements attributed to these reformers were recreational reform, housing improvement, and better urban transportation systems. The reform work of the settlement began at the neighborhood level and moved outward into the city. The key to restoring the city, reformers advocated, was through the revival of the neighborhood. Graham Taylor, a settlement reformer wrote that ". . . neighborhoods are the source of civic strength for progress."³⁴ Following this line of reasoning, settlements served as guardians of the neighborhood interest.

One settlement reformer advocated, or predicted, that the emphasis

³²Philanthropy and Social Progress, p. 17.

³³Philanthropy and Social Progress, pp. 18-22.

³⁴Philanthropy and Social Progress, p. 75.

in city planning should be placed on neighborhoods. Her justification for this proposition was that:

A settlement gets things done for a given neighborhood. It proposes to be the guardian of the neighborhood interest and through the identification of the interests of the settlement group, with the local interests, it forms a steady and permanent element in a community which is more or less wavering or in flux.³⁵

Similarly, Robert Woods wrote that, ". . . The neighborhood is large enough to include in essence all the problems of the city, the state, and the nation, and it is large enough to present these problems in a recognizable community form."³⁶

Settlement houses began to experiment with educational reforms. Eventually, their pioneering efforts led to the use of the school facility for recreational and social purposes. In 1902, John Dewey, addressing the National Education Board, stated that:

. . . What we want to see is the school, every public school, doing something of the same sort of work that is now being done by a settlement or two scattered at wide distances through the city.³⁷

However, the school center movement did not absorb the social settlement, but rather became a movement independent of settlements.

Social settlements also strived to reduce congestion in large urban areas. However, settlement workers felt that simply moving the population from urban to rural areas was not a permanent solution to the problem of overcrowding. Rather, the key to congestion relief was through urban improvement such as through the development of parks and playgrounds, better tenement houses, and comprehensive city planning to limit the number of

³⁵Philanthropy and Social Progress, p. 75.

³⁶Philanthropy and Social Progress, p. 75.

³⁷Philanthropy and Social Progress, p. 77.

people allowed to live in a given area. Reformers helped convince the nation that creative play was important to the development of better citizenship. Similarly, they showed that small playgrounds, strategically placed, could help reconstruct a better urban social environment. Perhaps, settlement workers were looking for the neighborhood unit concept when they cried out, "Is there not some feasible compromise or combination of county and city, having some of the benefits of both?"³⁸

In summary, the social settlements were an early attempt to promote social reform in urban areas. Their approach to urban reform was through new development. The movement, emphasizing the universal importance of humanity, not only helped to solve many of the social problems in urban areas, but also placed emphasis on planning at the neighborhood level for effective social and physical control. The efforts of these early reformers, through their method of approach, helped to mold the theoretical basis and the philosophical justification of the neighborhood unit concept as a tool for development.

IV. THE COMMUNITY CENTERS MOVEMENT

Due to the increasing social awareness which was growing in this country shortly after 1900, planners began to reflect social considerations in physical design. One of the earliest pioneering attempts at physical design for social efficiency was exhibited from 1905-1907, by the Civic League of St. Louis. This organization, concerned with civic improvement, produced what Charles Mulford Robinson labeled the most "comprehensive

³⁸Florence Kelly, "The Settlements, The Lost Opportunity," Charity and the Commons, XVI, (April 7, 1906), p. 81.

and elaborate" city plan of the times.³⁹

Preliminary work for the plan began in 1905, when the Executive Board of the Civic League of St. Louis appointed a committee to investigate the feasibility of preparing a plan for the city. The resulting report of the committee recommended the establishment of five local committees to prepare the sections of the plan. In addition, it was recommended that a general coordinating committee be established to incorporate the elements into a final city plan. A total of forty-two members, on the various committees, labored to produce the final document.⁴⁰

In 1907, the final plan was presented to the Executive Committee of the Civic League. The unique feature of the plan was a chapter titled "Civic Centers of Smaller Building Groups." The chapter recommended the clustering of institutions, around a common center, "which have for their object the mental, moral, or physical improvement of the neighborhood."⁴¹ The chapter recommended that after careful site selection by the Committee on Civic Centers, which would be based on the particular needs of the neighborhood, the city should establish a system of neighborhood civic centers for St. Louis.⁴²

Reflecting social considerations in the recommendation, Dwight F. Davis, chairman of the Civic Center Committee, wrote that:

While as yet the nature underlying most city plans has been primarily aesthetic, with the utilitarian and humanitarian motives of secondary importance, it is

³⁹Charles Mulford Robinson, "The City Plan Report of St. Louis," Charity and the Commons, XIX, (May 9, 1908), p. 1542.

⁴⁰Charles Mulford Robinson, "The City Plan Report," p. 1542.

⁴¹Charles Mulford Robinson, "The City Plan Report," p. 1542.

⁴²Charles Mulford Robinson, "The City Plan Report," p. 1542.

beginning to be understood that the lasting value of improvement work lies with its influence on the mind. To build a beautiful city is a worthy aim; a higher one ^{is} to develop it so as to mold the character of the people.⁴³

The plan called for clustering several public, semi-public, and private institutions around a common center. Included in the uses to be grouped together were: a public school, a parochial school, a branch library, a park and playground, a public bath, a model tenement, a settlement house, a church, a police station, a fire house, and homes of athletic and social organizations.⁴⁴ While the plan reflected social and philanthropic desires to physically arrange institutions for easy access by the population, it was also based on the notion that a small civic center in each neighborhood would result in better citizenship.⁴⁵ In addition, the plan presented the opportunity to add beauty to the neighborhood through harmonious treatment of landscape and architecture of the neighborhood center. The establishment of several civic centers, the committee hoped, would serve as a model for neighborhood improvement work and, thereby, ultimately foster civic pride.⁴⁶

The "neighborhood center" was described by Dwight F. Davis as:

. . . grouping all the various public, semi-public, and private institutions, which have as their aim the mental, moral, or physical upbuilding of the neighborhood in which they are situated.⁴⁷

⁴³Dwight F. Davis, "The Neighborhood Center-A Moral and Educational Factor," Charity and the Commons, XIX, (February 1, 1908), p. 1504.

⁴⁴Dwight F. Davis, "The Neighborhood Center," p. 1504.

⁴⁵Mel Scott, American City Planning Since 1890, (Los Angeles: University of California Press, 1969), p. 72.

⁴⁶Robinson, "The City Plan Report of St. Louis," p. 1544.

⁴⁷Dwight F. Davis, "The Neighborhood Center," p. 1504

In addition, Davis gave five advantages of grouping institutional uses by neighborhood.

1. The grouping of institutions would serve to center the interests of the locality and allow the institutions to support each other. The proximity of institutions to each other would add to the efficiency of each.
2. The institutions would be grouped around a park. This would allow common architectural and landscape treatment and add to the beauty of each neighborhood.
3. A neighborhood center would foster civic pride as the whole neighborhood will gain comparative attractiveness.
4. The neighborhood center would make social services readily available to foreign born immigrants who are presently unaware of social services.
5. Neighborhood centers would serve as rallying points for the development of neighborhood feeling. Once local interest is aroused, it can be directed to combat corruption and inefficiency in political affairs.⁴⁸

The recommendations of the Civic League of St. Louis' chapter on neighborhood centers was an innovative approach to physical design for social needs. However, while the system of community centers in St. Louis involved clustering several institutions around a common center, this method at first appeared to be impractical for most cities. Nonetheless, the community center seed was planted. Planners gradually became inspired to create a physical design which was not only aesthetically appealing, but also socially efficient, in terms of creating a social order in municipal affairs.

Perhaps inspired by the progressive plan of St. Louis, in 1910, Clarence Perry wrote a highly publicized book, The Wider Use of the School Plant. This book not only offered a more practical solution to the creation

⁴⁸Davis, "The Neighborhood Center," p. 1505-06.

of community centers, but for the first time, Perry made mention of the term "neighborhood unit." Although he did not offer the formula for the concept in this book, it served to invoke several ideas which he would later include in his neighborhood unit concept.

The book called attention to the fact that while public schools were utilized eight hours a day, for the remaining hours the school was idle. Perry argued that public schools could serve a myriad of purposes other than formal education. Perry stressed that the public school facility could easily be utilized for evening schools, vacation summer school, public lectures, and adult social centers. Furthermore, Perry stressed that since the public school already existed and was centrally located to the population, it could be readily utilized with little extra expense.⁴⁹

Although a huge success as an inspiration to community centers advocates, Perry's notion of extended school use was not entirely new. As early as 1894, Jacob Riis, who had become one of the nation's most renowned social reformers through his various books and magazine articles depicting social disorders in large urban areas, had conceived the idea of combining public parks and school playgrounds. Riis not only deplored the small allotments of land designated for school playgrounds, but was also disturbed that the location of schools in residential areas tended to lower real estate values.⁵⁰

Riis argued that by combining school playgrounds and public parks, not only could school children be better served with larger recreation

⁴⁹Clarence A. Perry, Wider Use of the School Plant, (New York: The Russell Sage Foundation, 1910).

⁵⁰Jacob A. Riis, "Playgrounds for City Schools," The Century Magazine, XLVIII, (May-October, 1894), p. 657.

areas, but the public could also benefit from an attractive and useful neighborhood park. Riis stressed that urban communities should:

. . . let enough land be condemned around every public school in the city, that is not already isolated, to make a very small park that shall at once be a playground for the children and a breathing spot for the overworked mothers and their babies, as well as a place where the father may smoke his evening pipe.⁵¹

Riis maintained that through careful planning and design of the park area around the public school, the school would become a source of civic pride for the neighborhood. Furthermore, Riis felt that a school surrounded by such a park would serve to enhance rather than depreciate residential real estate values. Riis wrote:

If I had my way, I would surround every school in the city, uptown or downtown, with a park that would make it always the most attractive spot in the neighborhood.⁵²

Riis had even stressed that the school facility should be made available for public use. Similarly, Riis felt that a school building, attractive, useful, and above all, open, could be utilized by children after school hours for club rooms.⁵³ Riis, it would seem, had foreseen the wider use of school buildings sixteen years prior to Perry's book advocating the same notion.

As planners and social reformers began to establish the importance of the community center as the nucleus of community life, they also began to think of community organization at the neighborhood level. The neighborhood, reformers observed, seemed to constitute a small community in

⁵¹Riis, "Playgrounds for City Schools," p. 663.

⁵²Riis, p.663.

⁵³Riis, p.666.

itself. In fact, neighborhoods were viewed as "a portion of the city or state that is already more or less organized socially."⁵⁴ This notion was based on the assumption that the city possessed a social, as well as a physical, organization. The city, reformers argued, is organized into neighborhoods, each of which has sentiments, traditions, and a history of its own, apart from the city as a whole. While early reformers realized that neighborhoods existed without formal organization, it was viewed nonetheless as ". . . a social unit which by its clear definition of outline, its organic completeness, its hairtrigger reactions, may be fairly considered as functioning like a social unit."⁵⁵

Reformers recognized that, in terms of both the social and political organization, the neighborhood was the smallest local unit. In addition, they recognized that "proximity and neighborly contact was the basis for the simplest and most neighborly form of association with which we have to do in the organization of city life."⁵⁶ Social reformers stressed that the framework of our nation was based on the concept of self-governing communities, divided down to the smallest group, the family to the individual. The neighborhood, they felt, was the most important group next to the family. It was therefore important, they argued, to organize the community and provide a place ". . . where people can come together in a neighborly way, and in terms of democratic equality, learn to know each

⁵⁴Henry S. Curtis, "The Neighborhood Center," The American City, VII, (July, 1912), p. 14.

⁵⁵Robert E. Park, "The City: Suggestions for the Investigations of Human Behavior in the City Environment," The American Journal of Sociology, XX, (March, 1915), p. 578.

⁵⁶Park, "The City: Suggestions," p. 580.

other and extend and enrich the community sympathies."⁵⁷

The natural place for this type of organization, it seemed, was the public school. As one reformer wrote:

. . . the only institution which reaches out to all the people, to all ages, sexes, and races, at one time or another, is the public school ⁵⁸

In fact, the school as the community center had such an impetus on the social thought of the time, that in October of 1911, the first conference on social centers was held in Madison, Wisconsin, and emphasized community use of public school buildings.

Henry Curtis wrote in 1912, that while the town hall, and church, had at one time served as the center for the community, "the school is gradually coming to fill this place." In fact, wrote Curtis, "the school is already the center of the neighborhood, geographically, and in terms of neighborhood interest," and therefore, other utilities should also be grouped around it.⁵⁹

Curtis felt that an effective social center should consist of several public facilities grouped together for efficiency and effectiveness. Not unlike the Civic League of St. Louis, Curtis recommended clustering in a common center, association with the public school, a small park and playground, library, municipal bath and gymnasium, and a people's theater. By combining facilities in a common center, Curtis hoped to see the public

⁵⁷Henry E. Jackson, A Community Center, (New York: Macmillan Co., 1918), pp. 3-11.

⁵⁸L. J. Hanifan, Community Center, (New York: Silver, Burdett, and Company, 1920), pp. 29-41.

⁵⁹Curtis, "The Neighborhood Center," pp. 14-17.

school become a people's club which would serve as the center of community social life.⁶⁰

Curtis hoped to restore those elements of community life which were missing in large urban areas. In order to do so, Curtis thought it essential to restore social and political units within urban areas. By concentrating facilities in a common area for community use, he felt that individuals could be brought together and, thereby, strengthen community life. Curtis wrote:

. . . If we are to add to the neighborhood center the social center idea, and the people be brought together for various social occasions, dances, music, school, entertainments, etc., we shall have in the neighborhood center, which includes the public library, the municipal gymnasium and bath, the public playground and the park, the local lyceum and the people's theater, a real rallying ground for the people; we shall restore to the city district a community life and to the individual a social responsibility for his acts. Such a center would surely do much to conquer the city wilderness and to moralize individual conduct.⁶¹

Actually, the notion of a community center to serve the social and recreational needs of the population was not altogether new. Rather, reformers realized that this was common practice in rural areas. One reformer wrote:

. . . within the average village community could be found a number of small communities or neighborhoods whose centers are the school house or church. It is these smaller rural communities or neighborhoods with which the community center is likely to be concerned for the present ⁶²

Reformers hoped that urban areas might also be organized around the public school to form component parts of the larger urban fabric.

⁶⁰Henry S. Curtis, "The Neighborhood Center," The American City, VII, (August, 1912), p. 136.

⁶¹Curtis, "The Neighborhood Center," (August, 1912), p. 137.

⁶²Hanifan, Community Center, pp. 29-41.

. . . while the size of the community depends in part upon the topography of the country, the condition of the public highways, the facilities for transportation, and sparsity of the population, the size of the neighborhood is usually determined by the group of families who partonize the school or the chruch.⁶³

The school seemed to be the natural common interest point for child-rearing families and as such could be utilized to promote community organization.

In addition, social reformers saw four advantages of utilizing the school as the community or neighborhood center:

1. The school was free from partisan and sectarian interests.
2. The school was already a public institution.
3. The school was already accessible to all people.
4. The school had teachers, who already were paid public officials, from whom the people could expect a reasonable service in addition to their classroom work.⁶⁴

By 1916, the Community Center Movement had grown to such an extent that on April 16, 1916, another conference on community centers was held in New York City. The conference attempted to establish an official definition and requirements of a community center. The conference lasted four days and hosted delegates from sixty-eight cities.⁶⁵

The conference defined the community center as:

. . . an impulse and a device whereby individuals and groups are joined together cooperatively in school houses and other public properties or even in properties not public.⁶⁶

⁶³Hanifan, Community Center, p. 41.

⁶⁴Hanifan, p. 29.

⁶⁵John Collier, "Definitions and Debates of the Community Centers Conference," The American City, XIV, (June, 1916), pp. 572-74.

⁶⁶Collier, "Definitions and Debates," pp. 572-74.

In addition to defining the community center, the conference established the requirements for community centers.

1. A community center must be a small unit affair with both local responsibility and local freedom.
2. A community center must be self-supporting through economic service to the community.
3. A community center must not be developed as an isolated and inexpert enterprise. Rather, they should be organized through a central overhead machinery to promote self-government and self-support, such as a state department, board of education, corporation, or central agency cooperatively maintained by all local community centers.⁶⁷

The purpose of the Community Center Movement was to contribute to the material welfare of the individual and the community and to foster intellectual growth of citizens.⁶⁸ However, the chief aim of the movement was to deepen the contact and scope of education by extending the public school to become a "people's university." In addition, since one function of the public school was assumed to be that of making better citizens, the schoolhouse could serve as a community forum where orderly discussions of questions concerning community welfare could occur.⁶⁹

The basic assumption of the Community Center Movement was that democracy is essentially based on the organization of society on the basis of friendship. If the school could serve as a neighborhood club, reformers hoped it would broaden the basis of unity among men, multiply their points of contact, and allow consideration of common community interests.⁷⁰ In

⁶⁷Collier, "Definitions and Debates," pp. 572-74.

⁶⁸Anna Pendelton Schenck, "The Need for Neighborhood Centers in American Cities," The American City, XII, (April, 1915), pp. 337-339.

⁶⁹Jackson, A Community Center, pp. 3-14.

⁷⁰Jackson, pp. 3-14.

this sense, the Community Center Movement also served to promote public mindedness at the neighborhood level.

The conference on community centers had established the definition and requirements of community centers. The best expression of the community centers conference was the establishment of a committee of the Social Unit Organization. The Social Unit Organization was formed in the winter of 1915, in Washington, D.C. This committee established the "Social Unit Plan" as a method of community organization based on the neighborhood center.⁷¹ In order to achieve success for the organization, the committee sought to secure three things:

1. Endorsement of leading social and medical workers.
2. Money support which would go as a gift to the community in which it might be undertaken.
3. The services of national experts as advisors and aids to its execution.⁷²

In February of 1916, the National Social Unit Organization was formed in Washington, D.C. In November, the organization chose the Mohawk Brighton District in Cincinnati for the first unit experiment. The purpose of the experiment was to bring the neighborly advantages of the small town to the urban community. The idea was:

. . . to hasten the coming of democracy both genuine and efficient, by building upon the basis of population units, an organization through which the people can get a clear idea of their common needs, and can use the technical knowledge of skilled groups formulating and carrying out programs to meet these needs.⁷³

⁷¹C. J. Bushnell, "Community Center Movement as Moral Force," International Journal of Ethics, XXX, (April, 1920), p. 330.

⁷²Bushnell, "Community Center Movement," p. 330.

⁷³Bushnell, p. 331.

The central theme of the social unit plan was to:

. . . enable every individual to perceive and feel himself to be a factor in the life of the community, and to work intelligently for the whole community at the same time that he is working for himself. It attempted to develop a vital relationship between the masses and experts, the producers and consumers, and between people as human beings and people as vocational workers.⁷⁴

The Social Unit Organization, having secured an experimental site in Cincinnati, established a citizen council and an occupational council to serve jointly and deal with community problems. The citizen council was composed of one representative from each block, elected by the block council, who were elected by the people of the block above age eighteen. Block representatives on the citizen's council were established as paid general social agents of the district. The duty of the council was to report the needs of the people to the proper authorities and experts and to see that the needs are fulfilled. In essence, the citizen's council served as a "census and intelligence system."⁷⁵

The occupational council, on the other hand, secured one representative from each important vocational group in the community. The purpose of the occupational council was to bring functional groups to action, to meet the needs of all its individuals as reported and advised by the citizen's council.⁷⁶

Both councils met regularly in a centrally located building and cooperated through a jointly elected executive. These two councils served to represent the local government of the district. Similarly, they functioned to eliminate oversights, duplication, and conflicts of effort and

⁷⁴Bushnell, "Community Center Movement," p. 331.

⁷⁵Bushnell, p. 331.

⁷⁶Bushnell, p. 331.

"to transform the present hostile class distinctions of social privileges into friendly vocational distinctions of social services."⁷⁷ In sum, it was a scientifically detailed plan for the development of genuine community democracy and exhibited a true community approach to solving common problems. Today, this is called "citizen participation." While many planners think that this is a relatively new idea, in fact, it is not. Rather, the result of this early forum for citizen participation was one of the first examples of advocacy planning.

This experiment and several others served to enlighten the public as to the possibilities of effective organization and control of problems at the community level. Eventually, the United States Government, through the Bureau of Education, endorsed the Community Centers Movement. The slogan of the bureau became EVERY SCHOOL HOUSE A COMMUNITY CAPITOL AND EVERY COMMUNITY A LITTLE DEMOCRACY.⁷⁸ In praising the movement, President Wilson in a speech said:

. . . The creation of community councils is in my opinion making an advance of vital significance. It will, I believe, result when thoroughly carried out in welding the nation together as no great nation of any great size has ever been welded before. It will build up from the bottom an understanding and sympathy and unity of purpose and effort. You will find it, I think, not so much a new task as a unification of existing efforts, a fusion of energies now too much scattered and at times somewhat confused into one harmonious and effective power.⁷⁹

Planners gradually incorporated the notion of community centers as physical design for social improvement. In 1916, John Nolen wrote that the three considerations in locating neighborhood centers are:

⁷⁷Bushnell, "Community Center Movement," p. 331.

⁷⁸Bushnell, p. 337.

⁷⁹Bushnell, p. 337.

1. The frequency or extent of territory each unit can serve.
2. Access.
3. The relation of the center to the immediate surroundings such as streets and thoroughfares.

In planning for the location of centers, Nolen felt that the only way of determining the "effective radius" of any facility is to plot on a map the residence of all those regularly attending it and discover the radius of a circle which will include the majority of those using the center. Speaking broadly, Nolen felt that a half mile should be close to the effective limit of service for most recreational and social functions.⁸⁰

Nolen also advocated that neighborhood centers should be located so as to avoid hindrances to free access. Nolen felt that centers should be located near, but not directly on, one or more thoroughfares. This location would avoid noise and dangers associated with the thoroughfare to the users of the center. Access to the center from the thoroughfare, Nolen recommended, should be provided by adequate approaches leading directly to the center's main entrance, which should be both visible and easily found.⁸¹

Nolen was one of the earliest planners to advocate the planning of community centers. Nolen wrote:

a factor in the solution of the problem must be provision of accessible educational and recreational facilities for all age groups of the population in the residential suburb.⁸²

Nolen was certainly aware of the progress that had been made in utilizing

⁸⁰John Nolen, City Planning, (New York and London: Appleton and Co., 1916), p. 125.

⁸¹Nolen, City Planning, p. 126.

⁸²Nolen, p. 336.

the same facility as a multi-purpose center. Nolen was also keenly aware of the progression of social thought which begged for physical design to enhance political consciousness and civic spirit. As a result, Nolen was inspired to urge planners to show social concern through physical development.

Not only did Nolen advocate utilization of neighborhood centers for social improvement, he also advocated adequate provision of open space in residential developments. Nolen expressed his concern for social considerations by stressing the reserve of interior lands in residential areas to improve living conditions. Nolen wrote:

It is believed that the reserve of interior land may come to have a marked influence in improving living conditions, for, in addition to the play area for small children, provision may be made for allotment of gardens, tennis courts, and other common interests.⁸³

Nolen realized, before Perry, that there are limits to the effective grouping of neighborhood activities. The limitation is due to the variation in size of the districts to be served. Similarly, Nolen realized that in order to justify service provision, utilization of that service must be close to maximum capacity. Following this line of reasoning, Nolen stressed that planning for neighborhood activities should be based on the population that is to be served.⁸⁴

Nolen felt, as did many reformers of the times, that neighborhood activities should be grouped into a single center to better serve the population. Concerning the provision of a single center to accommodate social, educational, and recreational functions, Nolen wrote:

⁸³Nolen, City Planning, p. 124.

⁸⁴Nolen, p. 118.

The present tendency seems to be definitely moving towards considering all three as a single combined function, though as yet, we have no one term to embrace it.⁸⁵

Perhaps, the term he searched for, based on his population considerations, effective service radius, location of neighborhood centers away from hindrances while insuring free access, grouping neighborhood activities, and provision of open space amenities and reserve of interior lands, was the neighborhood unit. However, it was not until eight years later, in 1924, that Clarence Perry formalized his neighborhood unit scheme. It did not appear in published form until 1929, when it appeared in Volume VII of the Regional Survey of New York and Its Environs.

Without elaborating, Lewis Mumford wrote that the Community Centers Movement seemed to collapse in approximately 1920. Furthermore, Mumford claims that the movement left planners with two definite physical development notions which eventually led to the formation of the neighborhood unit concept. These two notions were:

1. The need of a definite building to serve as a meeting place for the local community.
2. The notion that the elementary school provided with suitable halls, offices, and committee rooms could serve both children and adults and it could function both day and night.⁸⁶

As a result of these two notions, the minimum requirements for a community center has become the standard basis for school design in all parts of the United States. In addition, the movement established the rational boundaries of the school, as the core or the nucleus of the neighborhood even before Perry formalized his notion of the neighborhood unit concept. In

⁸⁵Nolen, City Planning, p. 120.

⁸⁶Lewis Mumford, The Urban Prospect, (New York: Harcourt, Brace, & World, Inc., 1968), p. 64.

sum, after the collapse of the Community Center Movement, the foundation was laid for the establishment of a physical scheme based on social considerations. Clarence Perry would ultimately respond to this need with the neighborhood unit concept.⁸⁷

⁸⁷Mumford, The Urban Prospect, p. 64.

CHAPTER III

PHYSICALLY ORIENTED ANTECEDENTS OF THE NEIGHBORHOOD UNIT

I. SEPARATION OF PEDESTRIAN AND AUTO

In the years preceding the formation of the neighborhood unit concept, planning thought also manifested itself in concern for physical efficiency. As a result, several noteworthy physical design innovations in residential developments provided opportunities for a more pleasant living environment amidst the ills of industrial urbanized areas. One of the earliest physical design concepts, ultimately to be incorporated into the neighborhood unit concept, was first conceived by the landscape architect/planner, Fredrick Law Olmstead.

In 1851 Olmstead was commissioned to design Central Park for New York City. Olmstead was faced with the challenge of creating a rural setting on the outskirts of this country's largest city. Olmstead was also convinced that it would be necessary to provide the means to route city traffic through the park without interfering with its users.¹

Olmstead concluded that in order to preserve the natural setting of the park, and at the same time not interrupt New York's city traffic, it would be necessary to establish a system of specialized streets for the park. With this notion in mind, Olmstead labored to design the park.

In order to accommodate heavy vehicular traffic through the park,

¹Charles Capen McLaughlan, The Papers of Fredrick Law Olmstead, Vol. I, The Formative Years, (Baltimore: John Hopkins University Press, 1977), p. 21.

Olmstead created four transverse roads which were sunk below park level and designed to serve as the sole lines of communication from one side of the park to the other.² The transverse roads served two purposes for Olmstead. The first purpose of the transverse, sunken roads was to carry traffic across the long park at a rapid rate and at the same time prevent the park from interfering with the heavy traffic flow of the city. The second purpose of the sunken transverse roads was to hide the hectic pace of the city from the users of the park.³

Although the transverse roads passed through the park, they were designed to be utilized independently of the park. They were to be policed separate from the park and remain constantly open to all legitimate forms of city traffic.⁴ In addition to being sunken, the transverse roads were screened by planting to further separate them from the park. Crossing of the transverse roads by users of the park was facilitated by wide cross-bridges and pedestrian foot paths.⁵

In addition to the four transverse roads, Olmstead felt the need for three moderately direct transverse roads to be utilized by the traffic in the park. These roads were open to all classes of vehicles, but were primarily designed for carriages and hackney coaches.⁶ These carriage roads were sixty feet wide. However, in order to avoid vehicle races and to

²Albert Fein ed., Landscape Into City-Fredrick Law Olmstead's Plans for a Greater New York City, (New York: Cornell University Press, 1967), pp. 66-67.

³Elizabeth Stevenson, Park Maker-The Life of Fredrick Law Olmstead, (New York: Macmillan, 1977), p. 167.

⁴Albert Fein, Landscape Into City, p. 67.

⁵McLaughlan, The Papers, p. 21.

⁶Fein, p. 69.

promote quiet rides, drives, strolls, these roads were not designed as long straight parkways. Rather, they were curvilinear in design to avoid "speed and competition for place."⁷

Olmstead also included footpaths and bridal paths in Central Park which were uniquely separated from the other types of roadways. Although some of these pedestrian paths ran along side the carriage roads, they were separated from the carriage way by a four foot wide buffer turf. In addition, Olmstead allowed for footpaths which were completely private in relation to other types of roads. Therefore, no pedestrian would ever have to fear being run down by traffic, and "the horseman could have his canter and carriage owner his ride without fear of accident."⁸

Olmstead's specialized street system in Central Park and his system of sunken transverse roads were features unique in his design.⁹ Olmstead wrote:

Now we have multifarious styles of vehicles . . . many are consequently quite unfit to be used in streets adapted to the heavy wagons employed in commercial traffic and can only be fully enjoyed on roads expressly prepared for them. In parks, such roads are provided in connection with other arrangements for the health of the people.¹⁰

Olmstead's design was unique at that time because it demonstrated that a peaceful, safe relationship could exist between the pedestrian and heavy urban traffic. Eventually, Clarence Perry was to specify a specialized street system in the neighborhood unit concept with major arterials to be

⁷Albert Fein, Landscape Into City, pp. 87-88.

⁸McLaughlan, The Papers, p. 21.

⁹McLaughlan, p. 21.

¹⁰Fein, p. 151.

located on the outer periphery of the unit with only access and service roads within. Both physical safety and unity were enhanced through the specialized street system in Central Park. Later it would serve the same purpose for Clarence Perry.

II. THE GARDEN CITY MOVEMENT

The Garden City Movement, which began in England, owes its origin to Ebenezer Howard. In 1898, disgusted with the adverse conditions of London brought on by industrialization, Howard published Tomorrow: A Peaceful Path to Land Reform. Later retitled Garden Cities of Tomorrow, the book was a "best seller" for its day and served to stimulate planning thought for years after its release.

Howard, disillusioned with the aimless expansion of London and the overcrowding of its urban population, proposed an alternative to the sprawl of large urban areas. His proposal was the establishment of small self-contained satellite garden communities separated from the core urban area by a permanent green belt.

Howard began his proposition by stating that:

Each city may be regarded as a magnet, each person a needle; and so viewed it is at once seen that nothing short of the discovery of a method of constructing magnets of yet greater power than our cities possess can be effective for redistributing the population in a spontaneous and healthy manner.¹¹

The problem, he felt, was to make the country as attractive to the working man as the town, by offering amenities equal if not superior to the larger urban areas.

¹¹ Ebenezer Howard, Garden Cities of Tomorrow, (London: Faber and Faber Ltd., 1946), p. 45. First edition entitled: Tomorrow: A Peaceful Path to Land Reform, (1902).

Howard theorized the notion of three magnets, the town and country each being magnetic in its strength to draw populations to itself. A third type magnet, the town-country, Howard reasoned, could be created to offer an alternative drawing force based on the combined strength of the two. Howard realized that, singularly, the town as well as the country provided both advantages and disadvantages to their residents. The advantages of the town included high wages, employment opportunity, well-lit streets, and social services. Disadvantages of the town were reflected in high rents and prices, slums, pollution, and lack of sunlight and open space. On the other hand, the country offered residents the advantages of natural beauty, scenic vistas, fresh air, and lower rents. Disadvantages included lack of society, no capital, and no modern sanitary improvements. In this respect, neither country nor city life offered to its residents the "full plan and purpose of nature."¹²

Howard proposed as an alternative to the town or country magnet, a new environment consisting of a marriage of the advantages of each. His alternative for which he coined the phrase "garden city," meaning city in a garden, "was not a suburb but the antithesis of a suburb: not a more rural retreat, but a more integrated foundation for an effective urban life."¹³

Howard's scheme proposed obtaining a tract of land encompassing 6,000 acres, bought on the open market. The land was to be legally vested in the hands of four administrators to be held in trust for the community. There was to be no private ownership of property in the garden city but

¹²Howard, Garden Cities, pp. 46-48.

¹³Howard, p. 35.

rather, all rents, based on the annual value of the land, were to be paid to the trustees. The trustees, after providing for interest and a sinking fund, would place the balance of the capital into the creation and maintenance of the city's public works and amenities.¹⁴

The elements included in Howard's garden city were incorporated to counter the problems which were present in the larger industrial cities of his time. The first element Howard conceived was that of planned dispersal. As cities grow beyond the limits of efficient service provision, Howard proposed that an outward migration of people and industry be dispersed into smaller independent garden cities. These towns were to be of sufficient size to provide adequate services and offer a variety of occupations and a level of culture needed by a cross section of modern society. This planned dispersal would serve to halt the sprawl, congestion, and formless growth of large industrial areas.¹⁵

Howard's ideal garden city was to be limited in size to 30,000 inhabitants in the city and an additional 2,000 inhabitants in the outer countryside. Through the limitation of population size and density, the problems associated with congestion would be eliminated. People would be close to work, shopping, social centers, and to each other. Similarly, the towns would be open with adequate open space provided for schools, parks and parkways, and other functional purposes.¹⁶

The town was to be well defined in regard to the town-country relationship. In addition to the city itself, the development would

¹⁴Howard, pp. 50-51.

¹⁵F. J. Osborne, Green Belt Cities, (London: Faber & Faber Ltd., 1964), pp. 32-33.

¹⁶Osborne, Green Belt Cities, pp. 32-33.

contain a large, permanent greenbelt encircling the town to be used for agricultural and recreational purposes by the townspeople. The availability of the nearby market would serve as a cultural center for the rural population while the city people would receive the benefit of the country situation.¹⁷

The town that Howard envisioned would be under quasi-public or unified ownership by the population and, thereby, be a joint municipal and cooperative enterprise. The development of the town was to be based on planning control. The whole network of the town, including the roads, functional zoning of land uses, maximum density limits, and the control of building quality and design was to be preplanned. In this manner, the quality of the development would be insured, while still allowing for individual variety in such areas as skillful planting and landscape design.¹⁸

Howard's ideal garden city was conceptually designed as a series of concentric rings comprising approximately one thousand acres and located in the center of the six thousand acre tract secured for the project. (See Figure 3-1.) The radius of the circular city was to be approximately 1,240 yards or $3/4$ mile from the center to the circumference of the circle. The very center of this city would contain a circular area of five and a half acres of garden space. Around this garden would be placed large public buildings, the town hall, a concert and lecture hall, theater, library, museum, picture gallery, and hospital.¹⁹

¹⁷Osborne, pp. 32-33.

¹⁸Osborne, pp. 32-33.

¹⁹Howard, pp. 51-57.

Radiating from the center of the garden city would be six, one hundred and twenty foot wide boulevards, which would serve to divide the city into six equal parts or wards. The area of each ward would comprise approximately one-sixth of the city and would contain approximately five thousand inhabitants. These wards were actually neighborhoods, based on the population required to support one school. In addition, they were each independent in themselves, with the school building designed to serve as a neighborhood church, library, and a place for concerts and meetings.²⁰

The next concentric ring radiating from the center of Howard's garden city was to contain approximately 145 acres. This ring was to serve as a central park and provide ample available open space for the entire community. Howard proposed a wide glass arcade to encircle the park which he called the Crystal Palace. The palace would open onto the park and would be used for shops and indoor winter gardens.²¹

The next concentric ring was to be separated from the Crystal Palace by a circular tree-lined avenue with houses fronting on it. All building lots in the garden city were to be 20 x 130 feet, with the minimum lot being 20 x 100 feet. The total number of lots were not to exceed 5,000 in his garden city. On these lots were to be built excellent houses all fronting on either the circular avenues or transverse roads and boulevards which ran through the city.²²

The outer most concentric ring of Howard's ideal city was the industrial section of the city. The industrial area was separated from

²⁰Howard, pp. 51-57.

²¹Howard, pp. 51-57.

²²Howard, pp. 51-57.

the other land uses in his scheme by a circular avenue which Howard called Grand Avenue. Grand Avenue, which was 420 feet in width, would serve as a buffer between the industrial area and other land uses. In addition, this avenue would provide another green park of 115 acres. The industrial uses within this concentric ring would be located so as to have access to a circular railway which was to encompass the entire town. This railway was to be connected to a main railway line passing through the entire estate and thereby allowing for the efficient movement of industrial goods throughout the town.²³

The remaining area of the town consisted of the agricultural green belt. This area was to be held by various individuals in large farms, small holdings allotments, and cow pastures. The purpose of the ring was to be twofold. The ring would serve to provide the city with agricultural goods and also serve as a permanent open recreational area for the city's inhabitants. In addition, it was to function to limit the size of the farming purposes by the agricultural section of the estate, and the town proper would serve as a cultural center and market for the agricultural population.²⁴

Howard viewed the city as an organic unit, recognizing the relationship of the parts of the city to each other. (See Figure 3-2.) Accordingly, any functional limit of any area, Howard reasoned, would serve as a functional limit to the entire town. Similarly, Howard realized that no small city could be fully self-contained. Rather, there are a

²³Howard, pp. 51-57.

²⁴Howard, pp. 51-57.

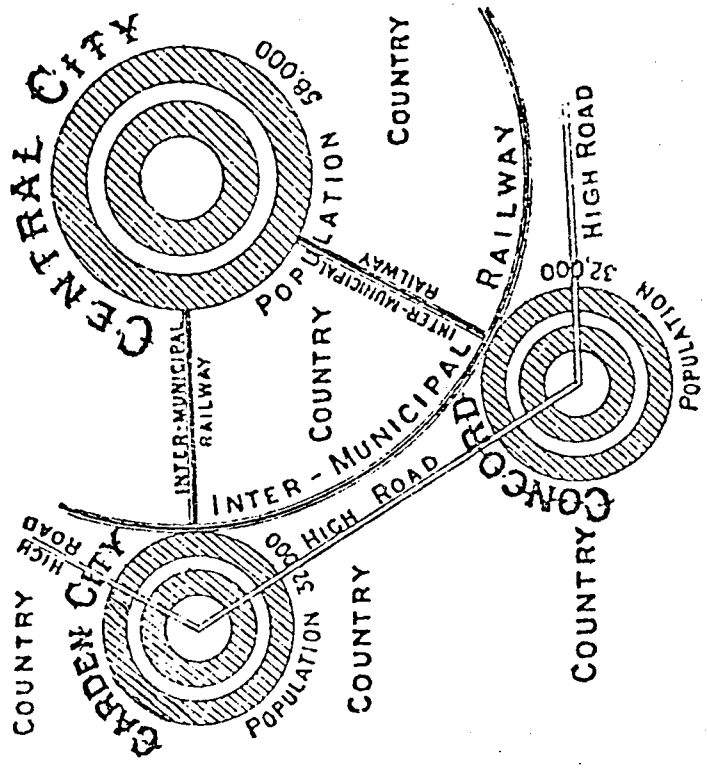


Figure 3-2. Ebenezer Howard's diagram of regional satellite cities. Note the connection of centers by major transportation corridors. Source: Howard, Garden Cities of Tomorrow, (Faber and Faber, 1946).

number of specialized functions which Howard felt could be easier performed in larger urban areas. This is due to the reservoir of varied occupations, diversity of human interests, and availability of capital in the larger urban areas. Therefore, Howard proposed the establishment of several small communities, interacting and functioning as a regional unit. This regional unit, Howard felt, should consist of ten cities with a total combined population of 300,000 inhabitants, bound by a rapid transit system to unify the cities for mutual interaction. Howard called this regional unit the "town cluster," and this, for Howard, represented the ideal growth pattern for the future.²⁵

Embodied in Howard's concept of the garden city were the principles of limited population numbers and land area, growth by colonization, variety and sufficiency of economic opportunity and social advantages, and control of land in the public interest. These notions were founded on three previously conceived concepts which had a marked effect on Howard's philosophy. These concepts included; the notion of an organized migratory movement proposed by Wakefield and Marshall, the system of land tenure of Thomas Spence and Herbert Spencer, and the ideas of town development conceived fifty years earlier by James S. Buckingham.²⁶

However, Howard's scheme was unique in that it proposed an industrial reorganization scheme which would offer an environment for the healthy development of future generations. His book proposed a transformed English industrial civilization which eliminated slums, congestion, and

²⁵F. J. Osborne and Arnold Whittick, The New Towns, (London: Leonard Hill, 1969), pp. 26-28.

²⁶Osborne and Whittick, The New Towns, pp. 26-28.

overcrowding. Residents would be provided with a sanitary and attractive dwelling situated on its own ground around a common turf and based on the notion of neighborhood development. Each of the six wards in Howard's scheme were to function as neighborhoods, serving as distinct social and developmental entities and centering around the public school.²⁷

Also new were Howard's notions of a town based on complete planning control, unified ownership, and designed as a merger of town and country.²⁸ However, critics quickly attacked Howard's scheme as utopian and, therefore, it was not immediately appreciated for the elements which constituted his idea. This was perhaps due to previously contrived endeavors to create utopian societies by such theorists as Sir Thomas Moore and Robert Owen. Unlike other utopian theorists, Howard did not wish to reform human nature, but rather he viewed the physical environment as an important factor in complete human development. In addition, Howard was attempting to deal with a social issue, namely, the wise direction of town growth, which he believed should be accommodated by the planned dispersal of the population into regional cities of limited size. Howard immediately set about the task of proving this conviction.

III. THE GARDEN CITY ASSOCIATION

Although Howard's scheme for garden city development was regarded as merely another impractical utopian scheme, he responded to his critic by preparing to show the validity of his proposal. In June of 1899,

²⁷Gustav Stickley ed., "Rapid Growth of the Garden City Movement, Which Promises to Reorganize Social Conditions All Over the World," The Craftsman Magazine, XVII, (October-March, 1910), pp. 302-303.

²⁸Osborne, Green Belt Cities, pp. 32-33.

Howard established a voluntary society to advocate the principles he stressed in Tomorrow. The society became known as the Garden City Association and was formed with the objective ". . . to promote the discussion of the project suggested by Ebenezer Howard . . . and ultimately to formulate a practical scheme on the lines of that project, with such modifications as may appear desirable."²⁹

Ralph Neville was appointed the first chairman of the association in 1901. At that time, the chief object of the Garden Cities Association was:

. . . to bring a spontaneous movement of people back to the land by creating conditions that will give them the advantages of the city and country combined and to keep the whole thing on an economic basis that will afford comfort and prosperity to people of very moderate means.³⁰

This objective was to be accomplished by buying agricultural land and building on it a town or village, planned and built as a whole. By such a coordinated effort, great savings in development costs could be insured from the beginning. Similarly, since ground rents were to be based on the original value of the land, great savings could be provided to residents of the new town.

With the primary object of the association established, Howard and Neville based all the thought and attention of the association on a single field experiment which the association felt:

should be sufficiently large to be attractive and resourceful and yet not too large to be handled like any business enterprise.³¹

²⁹Gorden E. Cherry, The Evolution of British Town Planning, (New York: John Wiley & Sons, 1974), p. 35.

³⁰Stickley, p. 304.

³¹Stickley, p. 304.

In order to promote following for the association, two conferences were held in 1901 and 1902 at Bourneville in the West Midlands and Port Sunlight on Port Merseyside. Howard outlined his conceptual plan at these conferences, and as a result, delegates from hundreds of localities became acquainted with the work of the Garden City Association.³²

Gradually, the aims of the association were expanded. The association approved the following objects in July, 1903:

To promote the relief of overcrowding of congested areas, to secure a wider distribution of the population over the land, and to advance the moral, intellectual, and physical development of the people by,

- A. Taking the initial steps to establish garden cities in which the inhabitants shall become in a corporate capacity the owners of sites, subject to the fullest recognition of the individual as well as the public interest;
- B. Encouraging the tendency of manufacturers and others to move from crowded centers to rural districts, cooperating with such manufacturers and with public bodies in securing healthy housing accommodations for the work people in proximity to the places of employment;
- C. Cooperating with other organizations in promoting legislation to enlarge the powers of public authorities with a view of securing a solution to the housing problem and improved systems of communication;
- D. Stimulating interest in and promoting the scientific development of towns so that the evils arising from the haphazard growth may in the future be avoided;
- E. Promoting the creation of sanitary and beautiful dwellings with adequate space for gardens and reception.³³

After having established a clear definition of purpose, in 1903, the Garden City Association formed the Garden City Company. The purpose of the newly formed company was:

³²Osborne and Whittick, p. 33.

³³Cherry, The Evolution, p. 35.

. . . to obtain tracts of land comprising 6,000 acres each, upon which to locate, at a residential center, several thousands of industrialists of the manufacturing and artisan class.³⁴

Ralph Neville served as president of the first pioneer company. In addition, Ebenezer Howard and Dr. Thomas Adams, who was to eventually become the first manager of the new garden city, were members of the company's first board.

The pioneer company immediately began the task of site examination. The company reviewed several sites which were freehold tracts of from four to six thousand acres. Eventually the company chose Letchworth Estate, in Hertfordshire, located thirty-five miles north of London.³⁵ The land chosen by the company was held by fifteen owners and the original purchase, in 1903, included 3,918 acres. In later years, additional acreage was obtained making the total site approximately 4,574 acres, some 1,500 acres short of Howard's original proposal.³⁶

The company chose Raymond Unwin and Barry Parker to design and develop the site. Construction of Letchworth Garden City began in 1903. In the conference at Bourneville, Howard had stressed that the development of a garden city would be adapted to the site and that the diagram of his proposal was only a conceptual scheme. As a result of this, as well as the persistence of Parker and Unwin to avoid ". . . any suggestion of nineteenth century rigidity," the town took on a loose and informal aspect.³⁷

³⁴Annie L. Diggs, "The Garden City Movement," The Arena, XXVII, (July-December, 1902), p. 626.

³⁵Osborne and Whittick, p. 56.

³⁶F. J. Osborne, Green Belt Cities, p. 56.

³⁷Walter Creese, The Search for Environment, (New Haven and London: Yale University Press, 1969), p. 206.

Initially, Parker and Unwin chose to develop thirteen hundred acres of the site for the town. The remaining acreage of the tract was designated as open space, primarily in the form of the agricultural green-belt. Densities at Letchworth, thanks to Unwin, varied from only eight to twelve houses per acre, depending on the size and price of the unit. In addition, Parker and Unwin insured that no more than one-sixth of the site would be covered with buildings. Finally, in another effort to avoid crowding, minimum lot sizes were fixed at 20 x 100 feet. Later, minimum frontages were increased to thirty-two and forty feet.³⁸

From the beginning, Unwin and Parker were guided in their work by the Association's object to build a garden city designed:

to secure healthful and adequate housing for the whole population, and in which the inhabitants shall become in a collective capacity the owners of the sites, subject to full recognition of public as well as individual interests.³⁹

In addition, the new garden city was to be designed as a solution to two perplexing urban problems; the environment and employment. The development offered relief from the adverse conditions in large urban areas by providing housing for all classes of population, including the poor, abolishing slums, and by supplying employment to untrained, unorganized poor.⁴⁰

Other features of the development included:

1. Perpetual preservation of the surrounding agricultural area--expansion was to be carried on by duplication--new residential centers each environed by its own rural area;

³⁸Creese, The Search for Environment, pp. 205-206.

³⁹"Garden City and Garden Suburb," from the objects of the Garden City Association, The Edinburgh Review, (July-October, 1905), p. 510.

⁴⁰Diggs, "The Garden City Movement," pp. 226-31.

2. Insistence upon sanitary, commodious, and artistic building in accordance with an original and homogeneous plan;
3. Setting apart of the unearned increment of land values for the improvement and upkeep of the community;
4. Profit sharing, or labor copartnership in the factory or other businesses of the municipality.⁴¹

In addition, Howard hoped to offer such a diversity of industry in his city, so as to insure economic stability. This he felt would offer the Letchworth labor force insurance against want during possible commercial crisis. Pending the shifting of special industries, Howard also offered the residents of the garden city the comfort of possessing sufficient agricultural land for the comfortable maintenance of each residential center.⁴²

The Garden City Company was established as a public company in 1903 and invited share capital from the public. Dividends on the shares were limited to 5% per annum cumulative, with any balance of profit to be turned over to the company to be used in the form of benefits, either directly or indirectly, to the residents. In addition, land at Letchworth was not sold to individual home owners, but rather leased for 999 years ground rent, which included utility charges.⁴³ Later, this was changed to 99 years.

Raymond Unwin and Barry Parker proved to be exceptional choices as designers of Howard's first garden city. (See Figure 3-3.) Their work was a radical departure from the rigid geometrical form of the earlier plans of the times. However, Unwin paid little attention to

⁴¹Diggs, p. 626.

⁴²Diggs, p. 631.

⁴³"Garden City and Garden Suburb," p. 510.

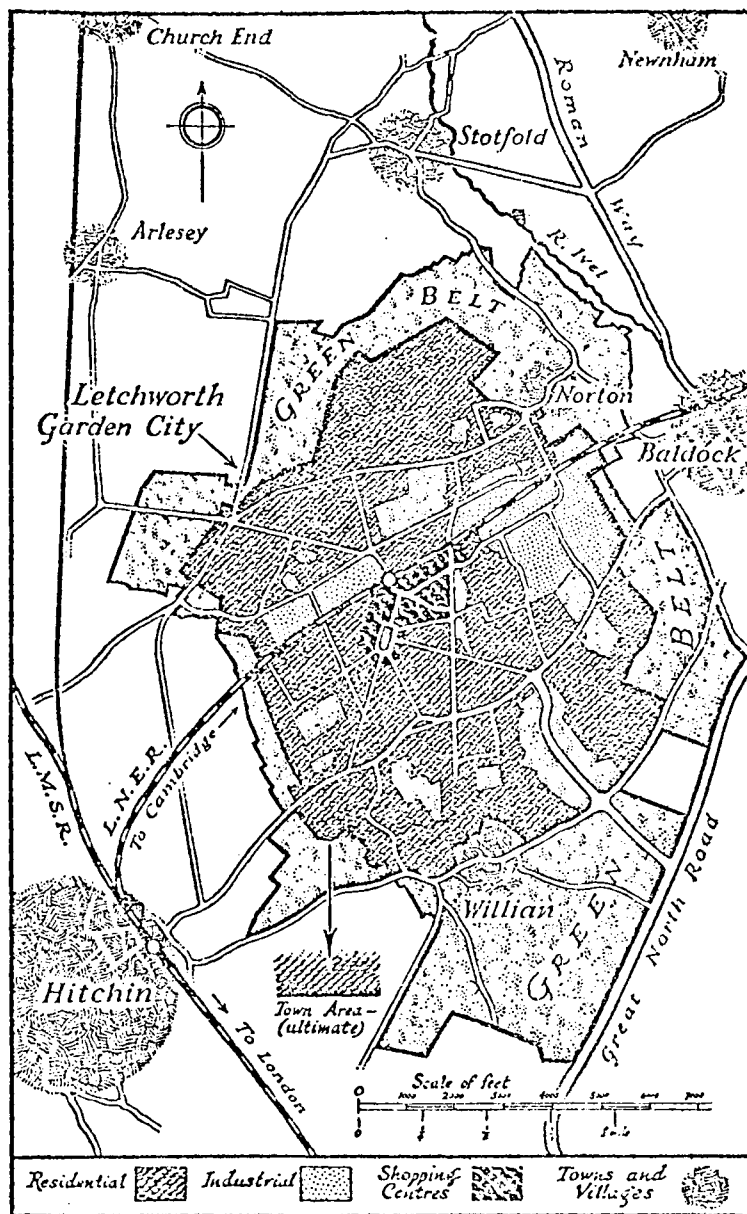


Figure 3-3. Plan of Letchworth, England, Howard's first constructed Garden City. Source: Howard, Garden Cities of Tomorrow, (Faber and Faber, 1946).

developing the town in terms of neighborhoods as had been suggested in Tomorrow. Rather Unwin chose to treat the town as an organic unit, in order to create the beauty and order previously achieved in the medieval village.⁴⁴ Unwin felt the medieval village development offered two opportunities for the future. These opportunities were the social and aesthetic benefits which had once been shared by the inhabitants of the village collectively. In such a medieval setting, Unwin stressed, all members had been in a direct relationship and thereby shared common interests. Unwin felt that modern city planning had ignored these linking relationships and that it was necessary to reconsider them in effective city planning.⁴⁵

Unwin, demonstrating the social concern present in the Garden Cities Movement, had insured that densities at Letchworth did not exceed ten houses per acre with access roads or twelve houses per acre without, even for the lowest income housing. (See Figure 3-4.) However, the estate company decided to leave most of the building and social development of the town to other agencies and to the residents of the garden city.⁴⁶

Early success at Letchworth was due largely to an exhibition of country cottages which were shown there in the fall of 1905. The exhibition featured cottages constructed in a competition open to architects and builders, and aroused much interest in the development. In sum, the competition resulted in the completion of thirty to forty cottages in the

⁴⁴Osborne and Whittick, The New Towns, pp. 61-65.

⁴⁵Creese, The Search for Environment, pp. 169-171.

⁴⁶Osborne and Whittick, p. 65.

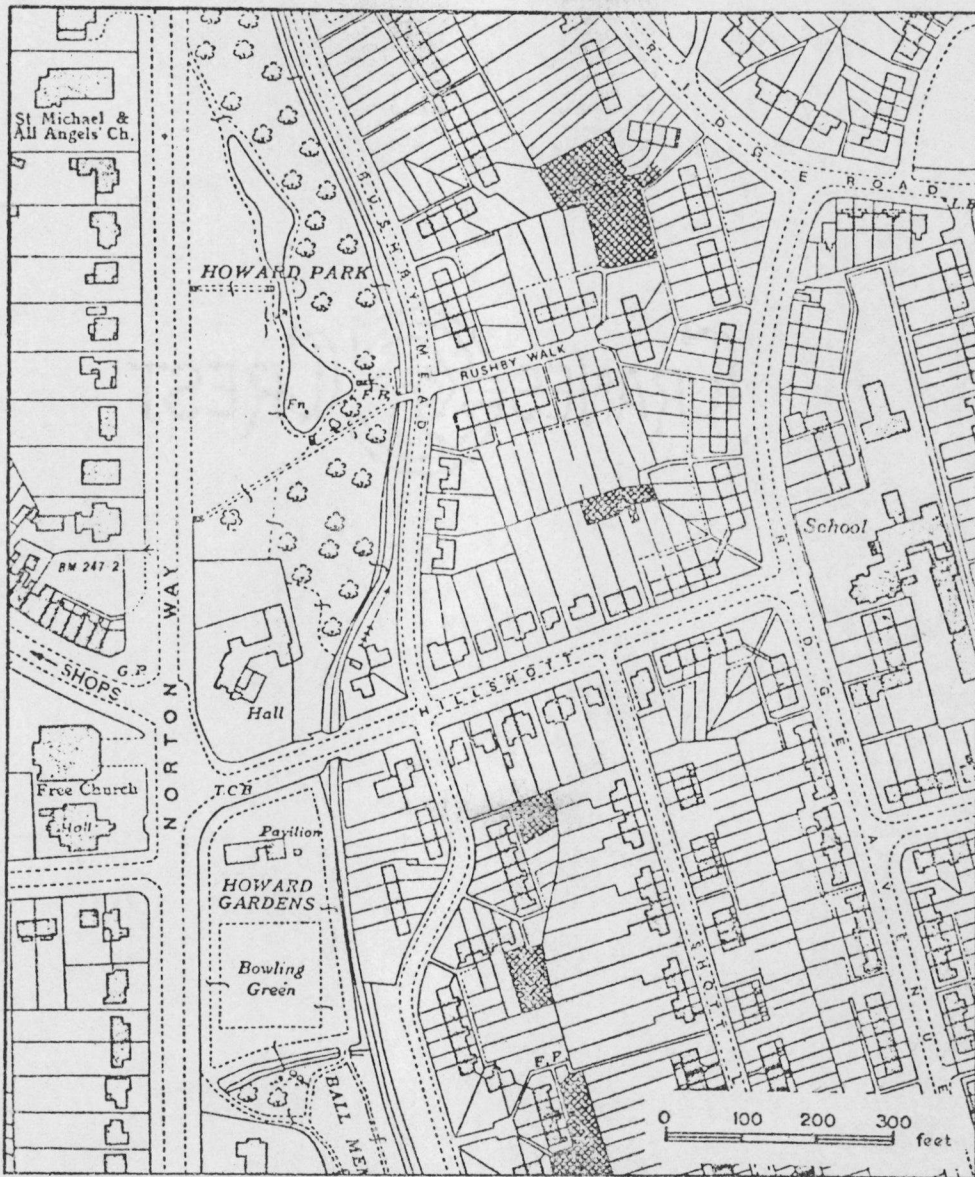


Figure 3-4. Early constructed residential section of Letchworth, England. The plan allowed for a mixture of housing types. Originally pedestrian paths connected the residential section but was later merged to form common gardens. Source: Osborne and Whittick, *New Towns*, (Leonard Hill, 1969).

style of the rural English homes of the times. While the cottages were attractive and offered large allowances of window space, none of them exceeded \$750, excluding the rent for the lot.⁴⁷

By June 1908, Letchworth was prospering as a successful new town development. The town contained; 5,600 residents, 1,020 houses, 55 shops, and 14 factories.⁴⁸ The development of Letchworth proved that new town development was a practical alternative to sprawling urban growth.

Similarly, it proved that the establishment of new towns, where the physical features are planned through unified land ownership, is possible under the free enterprise system. In fact, not only was Letchworth a living success, open to critics examination, it also offered potential residents three qualities as a desirable place to reside. These three qualities were:

1. It was a development, on the best lines of a middle class residential center, within an hour's railway ride from London;
2. It exhibited the creation of a manufacturing town under the best possible conditions;
3. It showed that much improvement was possible in designing and constructing workman's cottages.⁴⁹

Critics could no longer label Howard's scheme impractical and utopian.

Rather, Howard's work at Letchworth was to have a marked effect on planning thought and real estate development in the immediate future.

Although Letchworth was not developed using Howard's notions of the neighborhood or ward as the development scheme, due to Unwin's fondness

⁴⁷Edward Porritt, "Recent Events in England," The Outlook, LXXXIII, (May-August, 1906), pp. 80-84.

⁴⁸Creese, The Search for Environment, p. 218.

⁴⁹Porritt, "Recent Events," pp. 80-84.

of the medieval village, the existence of the city as a living example of Howard's idea would do much to establish the credibility of his notion. In fact, future developments would be based on many of the elements embodied in Tomorrow. Although the neighborhood unit was not developed at Letchworth, the concept was not dead. It did, however, lay in hibernation for a few years, until Perry defined its use as a practical development alternative.

IV. RAYMOND UNWIN

Raymond Unwin was an early supporter of the philosophy of Ebenezer Howard and did much to promote the garden city idea. Unwin, originally trained as a civil engineer and architect, found his fame as a town designer after he joined with Barry Parker in 1869. Together, the two worked as a team, Unwin laying out the entire site and Parker adding architectural detail.

One writer wrote that Unwin did:

. . . more than any one man to win in his own country, general recognition of the necessity of planning towns, as well as individual houses, and of basing these plans upon the requirements of modern life--by which it is meant not merely what people can put up with in the way of surroundings, but what they really need for the development of the best possibilities in their own lives and in those of their children.⁵⁰

Besides designing the plan for Letchworth and later Hampstead Garden Suburb, Unwin planned several garden willages based on the notions of class integration and sharing of luxuries and conveniences of individual homes in common.

⁵⁰Gustav Stickley ed., "Town Planning in Theory and Practice: The Work of Raymond Unwin," The Craftsman, XVII, (October, 1909-March, 1910), p. 391.

Unwin's unique approach to development involved measuring distances and relationships among objects to determine the most efficient physical design solution for a given site. In this respect Unwin wrote:

Always there is a need to congregate, to assemble, to bring people together and arrange them properly, to form a queue rather than a crowd.⁵¹

However, Unwin's developments also expressed beauty and artistic considerations. Unwin wrote:

All civic art is inevitably the expression of civic life and in this age we have almost forgotten how to make our own towns beautiful because beauty is not now recognized as being a necessity of life.⁵²

In this manner, Unwin considered artistic and practical design considerations to be interdependent.

To produce the interdependence of artistic and practical considerations, Unwin chose as his ideal the medieval village. Residential homes in his developments consisted of small, individual, inexpensive cottages, arranged in groups around a common green. This arrangement, Unwin felt, ". . . was the best possible investment for the well being of the family."⁵³

Rather than individual small yards allocated to each house, Unwin felt that the best designs provided for common open space to be utilized by a number of houses, forming a respectable garden or square. Similarly, he reasoned that the beauty of homes could be enhanced if individual cottages were arranged around a green space in a quadrangle. He felt that this type of arrangement provided the development with a sense of unity

⁵¹Walter L. Creese, The Legacy of Raymond Unwin, (Cambridge, Massachusetts: MIT Press, 1967), p. 28.

⁵²Stickley, Theory and Practice, p. 393.

⁵³Creese, Legacy of Unwin, p. 28.

which lifted it out of the commonplace. The common squares were utilized in Unwin's developments for family garden plots, playspace for children, and for scenic outlooks for the cottages which surrounded it.⁵⁴

As a designer, Unwin felt his first duty was to study the town, the site, and the people and their requirements before putting the design into effect. He felt that designers should consider that people tend to organize themselves in towns and villages to enjoy the interaction, to increase opportunities for the pleasures and culture which spring from it, and to enjoy material advantages gained from individual cooperation for a common purpose. At the same time, Unwin realized that this cooperation is generally limited to relatively small numbers of people who have immediate personal knowledge of each other, gained through immediate and constant personal relations. Therefore, Unwin wanted to avoid developments which would inhibit this cooperation and interaction among residents.

Like Howard, Unwin felt that ideally new developments, rather than being built on the outskirts of an overcrowded town center, should be clustered around it in subsidiary centers. (See Figure 3-5.) Unwin felt that these subsidiary centers should be limited to a size which can effectively keep in contact with the original center. Growth beyond the desired size would occur in additional subsidiary satellite centers.⁵⁵

Unwin stressed that new developments should integrate social classes. Similarly, he felt that the growing of suburbs strictly by economic class was undesirable socially, economically, and aesthetically.

⁵⁴Creese, Legacy of Unwin, pp. 56-68.

⁵⁵Creese, Legacy of Unwin, p. 110.

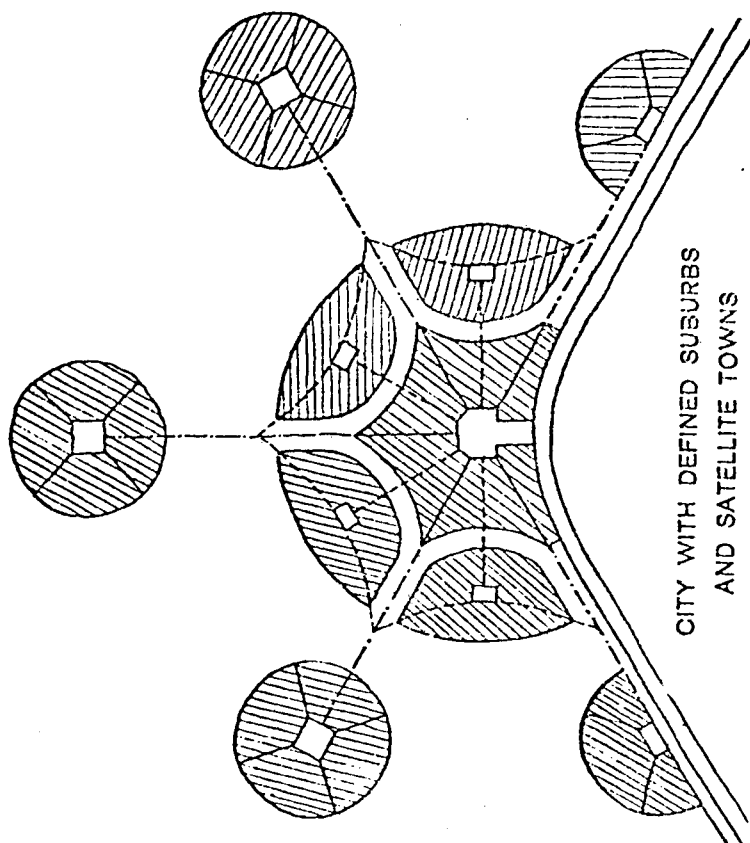


Figure 3-5. Raymond Unwin's diagram of regional satellite cities. Note the similarity to Howard's conception in Figure 3-2. Source: Osborne and Whittick, The New Towns, (Leonard Hill, 1969).

He justified this notion by warning that such developments would result in:

1. Bad municipal government and unfair distribution of the burdens of taxation;
2. Misunderstanding and want of trust between social classes;
3. Development and exaggeration of differences in habit and thought of the various classes.⁵⁶

Unwin's greatest contribution to planning was his formula of "twelve houses per acre," which he presented in a pamphlet titled Nothing Gained By Overcrowding. This notion was that it is not necessarily more profitable for a developer to crowd as many dwelling units on an acre of land as possible. By doing so, Unwin argued, the developer must provide greater numbers and lengths of roads to accommodate the increase in dwelling units. On the other hand, Unwin stressed that by limiting densities to no more than ten or twelve houses to the acre, clustered around a common green, the developer would save money on construction costs and through the efficient use of land.⁵⁷

However, Unwin also warned that his figure of ten to twelve houses per acre was flexible. Economy depends upon the cost of the land in relation to construction costs. Therefore, this figure might change when construction costs are inexpensive and land is excessively expensive. Generally speaking, he felt that developers would profit by using twelve houses per acre as a base for development.⁵⁸

Unwin's developments were based on several key themes. The first

⁵⁶Stickley, Theory and Practice, p. 400.

⁵⁷Creese, Legacy of Unwin, pp. 111-113.

⁵⁸Creese, Legacy of Unwin, pp. 111-113.

was that of "the village as an animate symbol." The village offered for Unwin two ideals for the future; social and aesthetic. The village to Unwin served as a social stabilizer, in which all inhabitants were in direct relation, sharing common interests which in turn formed the network of community life. Similarly, Unwin felt that the same linking relationships, which had one time occurred in the medieval village still exist and should be considered in modern planning. In this setting, people have a heightened sense of place in the community, Unwin argued, due to the harmony of style and the organic completeness of the community.⁵⁹

The second theme which Unwin held was the "necessity of understanding the past." This idea was the notion of utilizing traditional methods to guide new ideas. Unwin wrote that ". . . of special importance to the planner are the facilities of memory and association, resulting in tradition, and of imagination, the power to conceive new order as the basis of planning."⁶⁰

The third theme which guided Unwin's work was that of "the indispensability of beauty." The average citizen, to Unwin, was entitled to improvements pertaining to aesthetics. The individual, Unwin argued, gains a renewed sensibility to his community through his affection for his home. Planning, he therefore felt, must serve to "satisfy the natural aesthetic hunger of mankind." This, for Unwin, could be accomplished by building beauty and functionality of design into the community, which would give people the sense of locality which springs from common interests and enjoyments with those around them.⁶¹

⁵⁹Creese, Search for Environment, pp. 169-72.

⁶⁰Creese, Search for Environment, pp. 169-72.

⁶¹Creese, Search for Environment, pp. 169-72.

Finally, Unwin stressed the notion of "twelve houses per acre," which was the best known professional innovation of Parker and Unwin. This principle was not actually a principle of costing less so much as it was one for obtaining more for the money per family unit. Unwin wrote:

There is inevitably sufficient loss of frontage where there are more than twelve houses to the acre, to cause the costs of roads to outweigh the savings in costs of land which results from there being more than twelve houses to the acre except where land is unusually costly.⁶²

Raymond Unwin's contributions to the evolution of the neighborhood unit concept and to planning, in general, were tremendous. Unwin showed that the spirit of cooperation is the foundation of both successful home building and of the whole structure of successful town planning. In addition, he also demonstrated that beauty and amenity in a residential environment is a solid investment, rather than an extravagance. To this end, he showed that ordered growth serves the dual purpose of providing beauty and efficiency in new urban developments.⁶³

Through coherence of design, Unwin felt that developers could promote and enhance kinship and association which would result in "a pattern of life" rather than merely civic design. In a similar vein, Unwin promoted low density housing because this type of housing served to allow family growth and development rather than merely serving as physical shelter.⁶⁴

⁶²Creese, Search for Environment, pp. 169-72.

⁶³Walter Creese, "The Planning of Sir Raymond Unwin," Journal of the American Institute of Planners, XXX, No. 4, (November, 1974), pp. 295-304.

⁶⁴Creese, "Planning of Sir Raymond Unwin," pp. 295-304.

Unwin had many sound ideas for residential development. He wished to abandon the single family lot for the larger common green. Similarly, he demonstrated that large savings could be obtained by decreasing the number and length of roads, at the same time allowing sensitivity to the natural contours and vistas of the site. He advocated the use of the cul-de-sac for the protection of residential areas and pedestrians from the dangers of the automobile. Furthermore, he held that by placing around these cul-de-sacs quadrangle and T-shaped developments, developers could physically promote the idea of neighborly association. Finally, Unwin demonstrated that the pooling of land by superblocks would result in a reduction in the required number of roads, secure family organization, and allow aesthetic views as well as more open space for homeowners.⁶⁵

Unwin felt that a development should meet certain requirements in order to be successful. He stressed that a successful development should provide:

1. Local work and occupation for as many as possible of the people living there;
2. Local markets and shopping centers to supply daily needs; and
3. Educational and recreational facilities.⁶⁶

In addition Unwin wrote:

It will be found that the proposed distribution will depend on the proper apportionment of open space around each area and that this open space will serve two main purposes. It will provide all the opportunities for recreation, gardening and so forth, and it will give a degree of definition to the area and separation from the other areas which will emphasize the locality as a defined unit.⁶⁷

⁶⁵Creese, "Planning of Sir Raymond Unwin," pp. 295-304.

⁶⁶Lewis Mumford, The Urban Prospect, (New York: Harcourt, Brace, & World, Inc., 1968), pp. 65-66.

⁶⁷Mumford, The Urban Prospect, pp. 65-66.

Perry's concept was certainly no further advanced in theory than was Raymond Unwin's. However, Perry offered concrete details and a model proposal for the development of local neighborhood units.

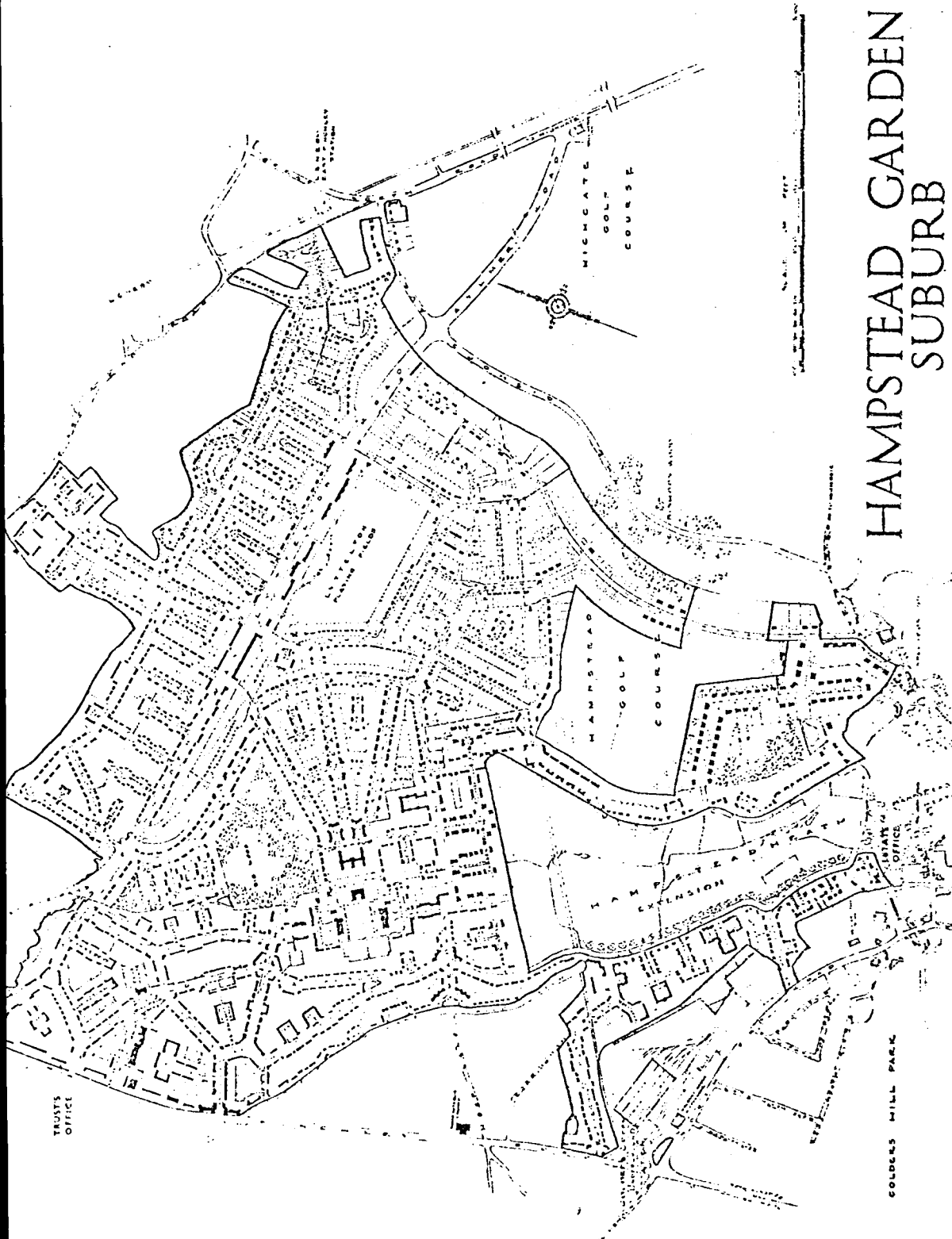
V. HAMPSTEAD GARDEN SUBURB

Soon after completion of the planning of Letchworth, in 1907, Raymond Unwin was employed to develop a garden suburb near the business section of London. The suburb was to offer the opportunity to live in an individual house near a large wooded area for a reasonable amount of money. The suburb, which became known as Hampstead Gardens, was located on the estate of Wildes, north of Hampstead Heath, on the outskirts of London.⁶⁸

Although the development was not an actual complete "Garden City," it was developed along the garden city lines and therefore instrumental in promoting the garden city idea. While the development probably helped lead to the misunderstanding of the term garden city, it nonetheless served to offer the opportunity for working people to live in a comfortable cottage in a country village setting within twenty minutes of London. (See Figure 3-6.)

The development consisted of an estate of 240 acres. Eighty acres of this tract were reserved as permanent open space serving to preserve and extend the historic common ground of Hampstead Heath, which became the heart of the development. The remaining acreage was designed as a coherent and well considered garden suburb. Promoters of the development were justified in their belief that:

⁶⁸"Cleanings, Hampstead England," The American City, II, (January, 1910), pp. 38-40.



HAMPSTEAD GARDEN SUBURB

Figure 3-6. Town plan of Hampstead Garden Suburbs. Source: Osborne and Whittick, The New Towns, (Leonard Hill, 1969).

. . . if the opportunity were provided to live in better conditions, it would be eagerly seized.⁶⁹

Every house was sold or rented even before work began on the project and the developers were confident that the development would reach its prescribed population limit by 1912.

One of the distinctive features of Hampstead Gardens was that it was planned and developed as a unit, rather than by different developers in piecemeal plots. Similarly, the development offered a variety of housing types and thereby promoted the friendly mingling of all classes. In the northern portion of the tract Unwin provided workman's cottages, both singularly and in groups, with care to provide ample open space for gardens, orchards, playgrounds, and common green wards. These cottages were each attractive, with its own distinct character and did not exceed the prescribed density of twelve houses to the acre. While the development offered houses of all types, rents for the workman's cottages averaged only \$1.50 per week. These cottages were well built, comfortable, convenient, thoroughly sanitary and attractive to look at. Whenever possible, Unwin chose to group these cottages together in order to promote the common utilization of shared conveniences. This, Unwin hoped, would serve to increase the scope and effectiveness of the cooperative features of the development as soon as possible.⁷⁰

In the southern portion of the tract, Unwin chose to construct the larger houses of the development. These larger houses were each surrounded by one to three acres of garden plot, and many fronted on Hampstead Heath.

⁶⁹Stickley, "Rapid Growth," p. 306.

⁷⁰Stickley, "Rapid Growth," p. 306.

Beyond these houses were situated the less ambitious houses for people of less means. In sum, the development offered houses for all social and economic classes, a large portion of which were devoted to the working people from the heart of London, whose means would have otherwise only allowed them one or two tenement rooms in the most crowded district of the city.⁷¹

The development was subdivided for a total of 1,900 houses. The realty company did not choose to sell the lots individually, but rather provided long term, low rent leases. Similarly, the development, planned from the beginning, insured that the land was "built on, not built up," and coordinated both functionally and artistically. Additional features of Hampstead Garden Suburb were: wide curved streets, pleasant views, the use of the cul-de-sac to loosen traffic and make the residential area safe and quiet, two churches, a small lake, a library, public playgrounds, common recreational facilities, and not a bush or tree was disturbed or disrupted, insuring the garden appearance of the development. In addition, Unwin chose to develop the area by providing boundaries to separate the development from other infringing uses, similar to a medieval village. Besides being bounded on one side by a dense wooded area, Unwin built a wall around the unprotected section of the suburb to unify the development.⁷²

Hampstead Garden Suburb was an initial success. Its popularity served to promote the garden type suburb development in both England and the United States. After viewing the Hampstead Suburb, the countess of Warwick wrote in 1908:

⁷¹Stickley, "Rapid Growth," p. 306.

⁷²"Cleanings, Hampstead England," pp. 38-40.

I believe that there is a great future before the garden city. It is too early to look toward the time when the sweltering masses of our overcrowded cities will be scattered in industrial communities on the land, which is now so rapidly going out of cultivation. But I am convinced that the garden city is the first step forward to this great ideal; that it will be found to be the solvent for the great and increasing misery of our crowded cities.⁷³

VI. THE GARDEN SUBURB AND LARGE SCALE REAL ESTATE DEVELOPMENT

Early success at Letchworth and Hampstead Garden Suburb showed planners and early critics the feasibility of establishing garden developments as an alternative to the crowded urban developments, which had been so prevalent in the nineteenth and early twentieth centuries, during the period of rapid urbanization associated with industrialization. Meanwhile, an unintended variation in Howard's scheme emerged to dominate both planning thought and real estate development in the immediate years following the development at Letchworth. This variation, known as the "garden suburb," was yet another attempt to provide a more suitable residential environment to the working population.

Ebenezer Howard, in his book Tomorrow and at Letchworth, was anxious to avoid the formless spread of communities. Rather, he stressed that the solution to dispersal of residential populations lay in the creation of new and independent communities, divorced from existing overcrowded population centers. While Letchworth was an example of the type of development which Howard had imagined, proponents of the garden suburb overlooked the purpose of Howard's garden city idea. This idea was to

⁷³Robert Brown, "Progress of The Garden City Movement in England," The Arena, XL, (July-December, 1908), p. 459.

produce industrial town units, which were socially, physically, and economically independent from congested urban population centers. The principles behind his notion had been essentially:

1. Urban decentralization
2. Cities limited in size and population
3. Utilization of a surrounding greenbelt to limit size and to produce agricultural goods for the town
4. Cooperative land holding
5. Large scale planning for economic and social advantage.⁷⁴

In addition, Howard had intended his new town development to attract its own industry and resident population thereby relieving congestion and concentration of populations in major urban areas.

The confusion of the terms garden city and garden suburb in planning, according to F. J. Osborne, was due to a "laxity in terminology" in both the planning profession and lay movement. In addition, Osborne claims that the confusion was expanded due to three elements:

1. The rush to the suburbs
2. New forms of transportation
3. Chaotic conditions produced by business developments in city centers.⁷⁵

Osborne felt that:

Letchworth, the foundation of which roused for a time great interest in Howard's idea, had thrust upon it more even than it deserved of credit for the new housing standards. They became known as "garden city housing"--in itself a matter for pride. Unfortunately, the public, hailing the new standards

⁷⁴Ray Lubove, The Urban Community, (Englewood Cliffs, New Jersey: Prentice Hall, 1967), p. 11.

⁷⁵Osborne, Green Belt Cities, p. 39.

with enthusiasm, and them as now able to visualize houses but not towns, identified the component with the total product.

Everywhere enterprising builders and developers branded their goods "garden city houses" and these groups of houses garden cities . . . and so the public, at first much taken with Howard's idea and wishful to pursue the subject got thoroughly muddled between garden cities and garden suburbs.⁷⁶

In any event, the garden suburb became, especially in the United States, the predominant ideal for real estate development.

The garden suburb developed along the same lines as the garden city. One writer wrote that:

While the garden city is a creation--a city planned in a rural district, a garden suburb aims at directing into salutary channels a movement already existing.⁷⁷

While the suburban garden development was similar to the garden city in that both were developments based on the open pattern with ample private gardens, for the most part, garden suburbs were built to accommodate only 2,000 to 6,000 people primarily of the middle class. The confusion in terminology, and the adaptation of the garden city to include garden suburbs, wrote F. J. Osborne, was:

a chief oversight of modern city planning, resulting in a change in scale, land area, and population numbers without a coordinated change in design.⁷⁸

Nonetheless, the "garden" idea had taken root and Americans were to soon feel the effects in terms of suburban garden developments.

One of the effects of Howard's garden city idea was to show developers that the solution to urban development lay not merely in

⁷⁶Osborne, Green Belt Cities, p. 39.

⁷⁷"Garden Cities and Garden Suburbs," p. 511.

⁷⁸Osborne and Whittick, p. 27.

"scientific planning but also in civic independence and in the whole social scheme of an industrial people." The movement also showed that the:

hand to mouth methods of real estate speculation, with immediate profits as the main object, are analogous to the wastefulness with which our forests were destroyed in pioneer days.⁷⁹

At the same time the movement showed new hope for a lost urban development scheme. Since most of the early garden developments were small, self-contained communities, residents were able to gain a sense of neighborhood. This sense of neighborhood owed its origins to "the old village component, as essential to a balance urban life as are its centers of higher culture and purposeful association." As Robert Wood pointed out, "the suburb restored, in some ways, the earlier ideas of democratic participation and local initiative."⁸⁰

However, suburban development in the United States was not solely a result of Howard's garden city scheme. Rather, there had been several suburban developments in this country before the publication of Tomorrow. Between 1860 and 1900, a number of developments were completed to permit the owner-manager class to escape the ills of the city. These suburban developments were usually located beyond walking distance to the city and were only affordable to the wealthy.

One of the earliest examples of these suburban developments was Riverside, Illinois, planned by Fredrick Law Olmstead, Sr., landscape

⁷⁹Graham Romeyn Taylor, "Satellite Cities: Efficiency and Community Life," The Survey, XXX, (June 7, 1913), p. 340.

⁸⁰Lewis Mumford, The City in History, (New York: Harcourt, Brace, and World, Inc., 1961), p. 499.

architect, in 1869. William LeBaron Jenny, a Chicago engineer, executed the \$1.5 million project which was one of the most desirable places to live in its day.

The project reflected many of Olmstead's design features which he had first presented at Central Park. Riverside consisted of 1,600 acres west of Chicago on the Des Plaines River. In planning this exclusive development, Olmstead designed 699 acres or 43% of the site to be used as parkland. Interestingly, the development had one of the earliest sets of deed covenants requiring thirty foot street setbacks and mandatory planting of two trees by each resident property owner.⁸¹

Perhaps what is most important about Riverside are the innovations which Olmstead included and were to later influence suburban development in the years preceding the neighborhood unit concept. These four design innovations were:

1. The superblock,
2. The quiet cul-de-sac,
3. The strip park, and
4. The inner block common.

The development at Riverside stood in sharp contrast to the traditional grid pattern development which had heretofore dominated American residential development. However, like most of the suburban developments before the Garden City Movement, Riverside was affordable only to the wealthy. Similarly, the elements featured in the development, "the curvilinear-green-open-space-dominated residential street pattern, became the

⁸¹Lawrence C. Gerckens, American City Planning Since 1900 A.D., (A course manual prepared for the School of Architecture, Ohio State University, 1976), p. 7.

status symbol of the owner/manager class."⁸²

Another example of early suburban development in this country was Roland Park, Maryland near Baltimore. In 1891, the Roland Park Company hired Fredrick Law Olmstead, Sr., to create a suburban development similar to the one he had designed at Riverside. Like Riverside, this suburban development, although seven years prior to Howard's book, exemplified a more open approach to residential development. Riverside featured a careful design for a more pleasant environment through the principle of "adaption to site considerations rather than site destruction." As a result, this development was another example of a private endeavor which sought to "enhance beauty through carefully considered design."

The development company offered, by providing amenities in the design of Roland Park, a sharp contrast to the center city developments common to most urban areas. The road system at Roland Park was again curvilinear and carefully arranged to conform to the contours of the landscape. As a result, they appeared to be a natural feature of the development rather than being artificially imposed upon it. Similarly, sidewalks were elevated above road surfaces to avoid cutting deeply into hillsides. In most cases, development conformed to the trees on the site and additional shrubbery was planted to enhance the natural setting of the environment. Finally, the development featured underground wiring, deed restrictions, and two systems of sewers; one for storm and one for house drainage.⁸³

However, developments such as Roland Park and Riverside lacked much of the social foresight which was to affect the garden suburban developments

⁸²Gerckens, American City Planning, p. 7.

⁸³"A Residential Section Planned on Nature's Lines," The American City, IX, (August, 1913), pp. 113-117.

after Howard. Rather, they were built primarily for one class of the population, the wealthy, and therefore not universally applicable as a growth alternative to house the masses. Not until Unwin's pamphlet Nothing Gained By Overcrowding and the Garden City Movement was in full swing would planners and developers realize that "pleasant open spaces and parks and playgrounds were not an upper class luxury, but could be incorporated without extra cost, simply by saving on needless utilities and streets."⁸⁴

As a result of the growing social demands shouted by reformers, coupled with the success of such developments as Letchworth and Hampstead Garden Suburb in England, planners and real estate developers gradually became interested in the garden development as an alternative urban growth pattern.

In an address before the National Association of Real Estate Exchanges in 1913, J. C. Nichols of Kansas City, reflecting on the benefits of the garden type development, stated:

The subdividing of land for city purposes in practically all American cities is generally left to chance and private and selfish interests. City authorities have to some extent made certain general requirements as to a reasonable continuity and regularity of streets; but little has been done toward a good, wholesome, general city plan of subdivision.

The best manner of subdividing land should not necessarily mean the quickest sale. The destiny and growth of your town is largely effected by the foresight of the man who subdivides the land upon which you live.

It is easy enough to name your addition, file your plat, take your lots and advertise them for sale to those who may wish to buy; but it is a more difficult matter to decide what should be within the property, not only today but twenty five years from today--the class of houses, their architectural design, distance from the street, what character of outbuilding, location of

⁸⁴Mumford, The City in History, pp. 456-499.

telephone poles, location of churches and schools, provision of playgrounds, open centers for flowers and shrubbery, concealing of streetcar lines in parkways and erection of suitable shelters along the way, the decoration of streets with ornamental lights, placing of neighborhood stores in unobjectionable points, selection of best types of street improvements for pedestrian streets, and the creation of civic and local improvement associations that will be sufficiently alert to protect every restriction, and keep alive the interest and enthusiasm that exists in the addition when new.⁸⁵

After visiting the garden city developments in England, Julius Stern of the Chicago bar praised the Garden City Movement by saying in 1913:

This movement aims at the development of real homes, each family under its own roof--surrounded by ample grounds with plenty of light, air and the opportunity for healthful exercise in gardening during leisure hours, with its residential character protected against invasion and a collective interest in the advancing values of the communal ground . . . By collective undertakings in the future, we may surpass the achievements gained by individual efforts in the past, in securing not only homes that are a shelter, but houses that shall embody all the elements, physical, aesthetic and moral that the word "home" implies, with more of beauty within, more of protection without, and achieved with greater economy than before.⁸⁶

Perhaps the future achievements he was referring to was the concept of the neighborhood unit. In any event, garden developments gained tremendous support during the Garden City Movement. As a result, they were to also have a marked effect on planning thought in the future.

VII. FOREST HILLS GARDENS

One of the earliest developments in this country to reflect the philosophy of the Garden City Movement was Forest Hills Gardens, Long Island in New York. This development was not only an experiment in development based on Ebenezer Howard's ideas but also was to eventually influence Clarence Perry's concept of the neighborhood unit.

⁸⁵Taylor, "Satellite Cities," p. 340.

⁸⁶Taylor, p. 345.

Forest Hills Gardens, called the "first garden city in America," was the result of the "desire of Mrs. Russell Sage, to create with the large fortune left by her husband, something of permanent value to the country."⁸⁷ As a result, a 200 acre tract of land was purchased at Forest Hills in the Borough of Queens, nine miles from the Pennsylvania Railroad Station. Development of the tract began in 1911 by the Russell Sage Homes Foundation. The foundation decided from the outset that the development would serve as an "investment for social betterment" conducted on sound business principles. Furthermore, the foundation hoped that Forest Hills would:

1. Be an education to those of moderate means seeking peace and comfort of a model village, where there would be an opportunity for living without great expense and in charming houses.
2. Feature a bit of garden and congenial neighbors.
3. Be in easy commuting distance of New York City in picturesque surroundings, at the same time on the main travel lines of New York.⁸⁸

In describing the purpose of the development at Forest Hills Gardens, Robert W. Deforest, the vice president of the Russell Sage Foundation, wrote:

They have hoped that people of moderate income and good taste, who appreciate sympathetic surroundings but are tied close to the city by the nature of their occupations might find some country life within striking distance of the active centers of New York.⁸⁹

⁸⁷Edward Hale Brush, "A Garden City for the Man of Moderate Means," The Craftsman, XIX, (October, 1910), p. 446.

⁸⁸Brush, p. 446.

⁸⁹"Garden City Platted by Russell Sage Foundation," The Survey, XXV, (October, 1910-March, 1911), p. 310.

In addition, Deforest hoped that the development would:

1. Provide more healthful and attractive homes to many people;
2. Demonstrate that more tasteful and attractive surroundings and open spaces pay in subdivision developments, and thereby encourage duplication;
3. Encourage more economical methods of marketing;
4. Secure an attractive income for the foundation.⁹⁰

With these objectives in mind, the foundation employed Fredrick Law Olmstead as landscape architect, and Govesnor Atterbury as architect, to develop the site. The keynotes to the development were:

1. Careful and comprehensive initial layout;
2. Attractive, substantial and durable buildings;
3. Experienced management.⁹¹

Furthermore, there was no initial expense spared on roads, water supply, sewer, and other fundamental features of the development.

At Forest Hills Gardens, the Sage Foundation attempted to secure benefit from three important principles of city planning.⁹² (See Figure 3-7.) The first principle was that the main thoroughfares of the development were laid so as to be direct, ample, and convenient. The two main eighty foot wide thoroughfares, which were fixed in location by bridges which pass under the railroads, were carried straight through the property at a distance of 1,200 feet apart. In addition, two, seventy foot wide boulevards radiate from the Station Square commercial area, located in the center of the development. (See Figure 3-8.) Finally, secondary streets

⁹⁰"Garden City Platted," p. 310.

⁹¹"Garden City Platted," p. 310.

⁹²Govesnor Atterbury, "Forest Hills Gardens," The Survey, XXV, (January 7, 1911), pp. 563-570.



Figure 3-7. Plan of Forest Hills Gardens, New York as developed by 1930. Source: Scott, American City Planning Since 1890, (University of California, 1969).

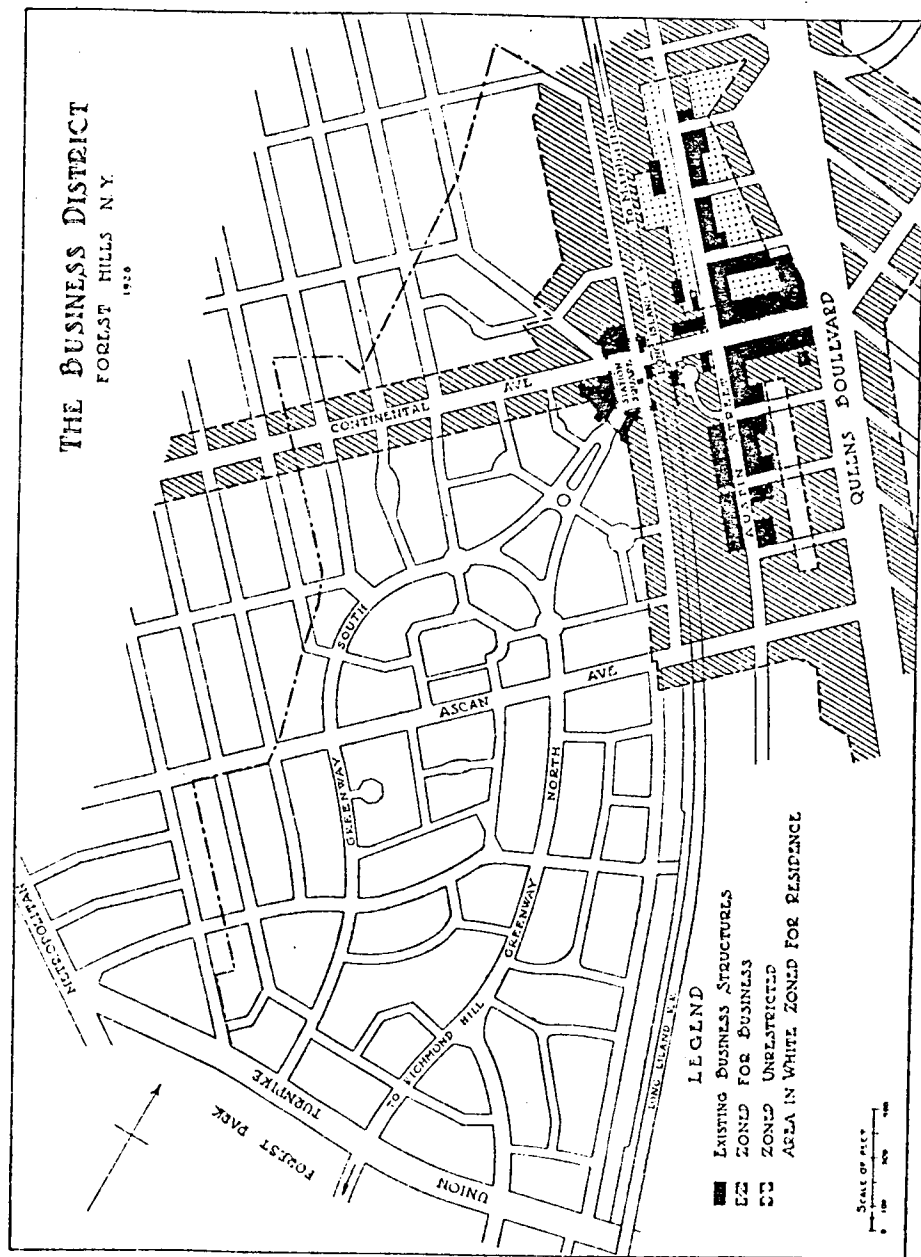


Figure 3-8. The business district at Forest Hills Gardens, New York. Source: Perry, The Regional Survey of New York and Environs, (1924).

of sixty foot width were laid to follow lines carefully relating to topography and to the development's tentative street plan.

The second principle was that streets not planned as thoroughfares were to serve as quiet, attractive residential streets. This feature was secured by laying out these streets so as to discourage their use by through traffic. This was accomplished by insuring that the streets were narrow and never perfectly straight for long distances. This provision insured that the "cosy domestic character" of the local streets allowed short, quiet, self-contained neighborhoods, each house having its own distinctive character.

The third principle employed at Forest Hills Gardens was the deliberate setting apart of certain areas for common use of the residents. Besides Forest Park, a five-hundred and thirty-six acre tract which ran adjacent to the development and formed the largest reservation of public park lands on the Borough of Queens, there was ample provision of public open space. In the area between the two largest avenues, in front of Station Square, an open space of three and one-half acres was provided. In addition, public school sties contained ample open space for recreation grounds. Finally, a one and half acre public recreation area and several enclosed block playgrounds of varying shapes and sizes provide the area with common open space to be enjoyed by the entire community. The block playgrounds were situated in the interior of blocks, reached by gates in the back yard and achieved by making these back yards somewhat smaller but not cramped. These block playgrounds were situated throughout the development and devoted primarily for use by the smaller children of the neighborhoods.

The designers of Forest Hills Gardens insured that buildings were

of tasteful design. The buildings were constructed of brick, cement, and other permanent materials. These materials were chosen because the designers felt that it was more economical to build a sound development, in the long run, even if it was more expensive initially. Similarly, building types ranged as wide as economic conditions would allow. Govesnor Atterbury wrote that:

while they will vary greatly in size, arrangement, cost, and architectural treatment, an attempt will be made to make them alike in their domestic and livable character.⁹³

The result of the work of Atterbury and Olmstead was a beautiful and harmonious design, probably unequalled before in this country.

Forest Hills Gardens offered residents a diverse selection of housing types including both free-standing and grouped. However, all housing types, even those built by individual owners, were required to conform to the high standards imposed by the foundation, namely substantial construction and permanence.⁹⁴

By 1917, the character of the suburb was solidly established. The use of small parks, additional public open spaces, and trees and shrubbery around the houses gave the suburb a park-like appearance. In addition, a considerable number of houses had been developed which were healthful, attractive, and solidly built. Finally, the development demonstrated that convenient thoroughfares, quiet domestic streets, and public open spaces were economically practical as well as beneficial features in suburban development.⁹⁵

⁹³Atterbury, "Forest Hills Gardens," pp. 563-570.

⁹⁴John M. Glen, et al., The Russell Sage Foundation, Vol. I., (Philadelphia: William F. Bell, 1947), p. 50.

⁹⁵Glen, Russell Sage Foundation, p. 50.

While Forest Hills Gardens provided the positive elements of direct access streets, domestic local streets, and neighborhood parks and open spaces, as well as one of the earliest sets of comprehensive deed restrictions, there were nonetheless some shortcomings of the development. The shortcomings of Forest Hills included:

1. The small parks could not substitute for playgrounds without injury to planting;
2. The schools lacked adequate space for playgrounds;
3. The shopping center was too limited to yield return on investment to pay for the amenities and decorative features of the development;
4. The heavy New York traffic coupled with the direct access streets resulted in five heavily traveled streets which served to cut up the development.⁹⁶

However, the positive elements of the development served to influence Perry's formation of the neighborhood unit concept.

VIII. CHICAGO CITY CLUB COMPETITION

As a result of the growing awareness of the achievements gained along the lines of garden developments, American city planners began to experiment with definite schemes for the development of outlying urban areas. These planners were aware that the degree of success achieved in both garden suburbs and at Letchworth was based on collective planning, development, and control. With these elements in mind, planners searched for a method to "house the masses" and at the same time provide a means for constructive city building.⁹⁷

⁹⁶James Dahir, Communities for Better Living, (New York: Harper & Brothers, 1950), pp. 181-84.

⁹⁷Mumford, Urban Prospect, p. 64.

One of the attempts to establish an efficient pattern of development, which gave stimulus to the neighborhood scheme trend, was exhibited by the Chicago City Club in 1913. The city club held a competition in which competitors were asked to submit plans for development of unimproved residential property on the outskirts of the city for people of small or moderate means. As a result of the competition, thirty-nine plans were submitted from planners in fourteen different cities.

The conditions for the competition were that each planner would examine a quarter section, 160 acres, to develop a residential scheme, from which the winning plan would be adopted for actual development. Each competitor was instructed to include in his plan street widths and arrangement, grass plots, size and arrangement of lots, location of dwellings, gardens, open spaces other than streets, and space for business, recreational, educational, religious, administrative and other social needs. The competition was won by Wilhelm Bernard of Chicago and second prize went to Authur C. Comey of Cambridge, Massachusetts. As a result of the competition, Chicago received several residential unit plans, many of which were remarkably similar to Perry's concept of the neighborhood unit.⁹⁸

In addition, the competition held by the Chicago City Club, the National Conference on City Planning, held in Chicago May 5-7, 1913, sponsored a study for the public supervision and control of suburban growth. The conditions of the study were similar to those offered by the Chicago City Club competition, except that the cost of the land was specified at \$2,500 per acre. In addition, participants in the study were asked to submit the costs for fundamental service utilities such as sewers,

⁹⁸Taylor, "Satellite Cities," pp. 343-44.

lighting, and public service and the expected rent from the perspective inhabitants. Provisions in the plans were made to accommodate the majority of families at commercial rents of from \$15-\$30 per month. Similarly, allowances were made for families who could not pay \$15 per month as well as for those who would pay from \$30-\$100 per month.⁹⁹

At the end of one year, plans were submitted by nine groups of participants. The plans were accompanied by detailed figures covering construction costs, interest on capital, profit, and selling prices of the homes. This often forgotten competition helped serve as a stimulus for planners to think of residential development alternatives for constructive city building, based on realistic economic considerations.

IX. WELWYN GARDEN CITY

Meanwhile, the Garden City Association began thinking in terms of a second garden city development. Howard and three associates, after a careful site examination process, noted a suitable site for town construction on both sides of the main London York Line of the G&E Railway, (now the L.N.E. Railway), two miles from Hatfield. In 1919, 1,458 acres of the site were placed on public auction along with an additional, optional 230 woodland acres. Howard, attending the auction unprepared, had to borrow money from friends to purchase the property. Although far short of the desired 6,000 acres, additional purchases resulted in a total area of 4,317 acres, upon which was to be built Howard's second garden city.¹⁰⁰

In speaking of the second garden city, and perhaps wishing to

⁹⁹Taylor, "Satellite Cities," pp. 343-44.

¹⁰⁰F. J. Osborne, Green Belt Cities, p. 57.

clarify the confusion which had arisen between the terms garden city and garden suburb, Howard wrote:

The town has been planned as a garden city with a permanent agricultural and rural belt, with provisions for the needs of a population of 40-50,000. It will thus be seen that the scheme is entirely distinct from a garden suburb, which by providing for the housing of the people working in an adjoining district does nothing to relieve congestion and transportation difficulties . . . The method of planning proposed to be adopted by the company will not only reduce the cost of development, but will also preserve the amenities and health of the town.¹⁰¹

As a result, the planning and development of Welwyn became famous as the best example of a complete town design.

The original plan for Welwyn was prepared by Louis de Soissons, who continued as a consultant to insure continuity in development on the established lines of the plan. (See Figures 3-9 and 3-10.) In addition, Raymond Unwin helped to coordinate the development. Due to the presence of the railway, the town was divided into four quarters. Each of the quarters were treated as a separate division which was developed around a unit center. These centers included a public house, church, and community health center. In addition, each unit was served by its own school and the entire development was given a generous provision of open space and protected from intrusion by a rural green belt. Of the total 4,317 acres at Welwyn, 1,500 acres were designated as permanent open space.¹⁰²

The plan called for many of the established principles which Unwin had incorporated at Letchworth. To insure the residential quality of the development, an irregular curvilinear street layout was used with a system

¹⁰¹Osborne and Whittick, The New Towns, p. 67.

¹⁰²Osborne and Whittick, p. 228.

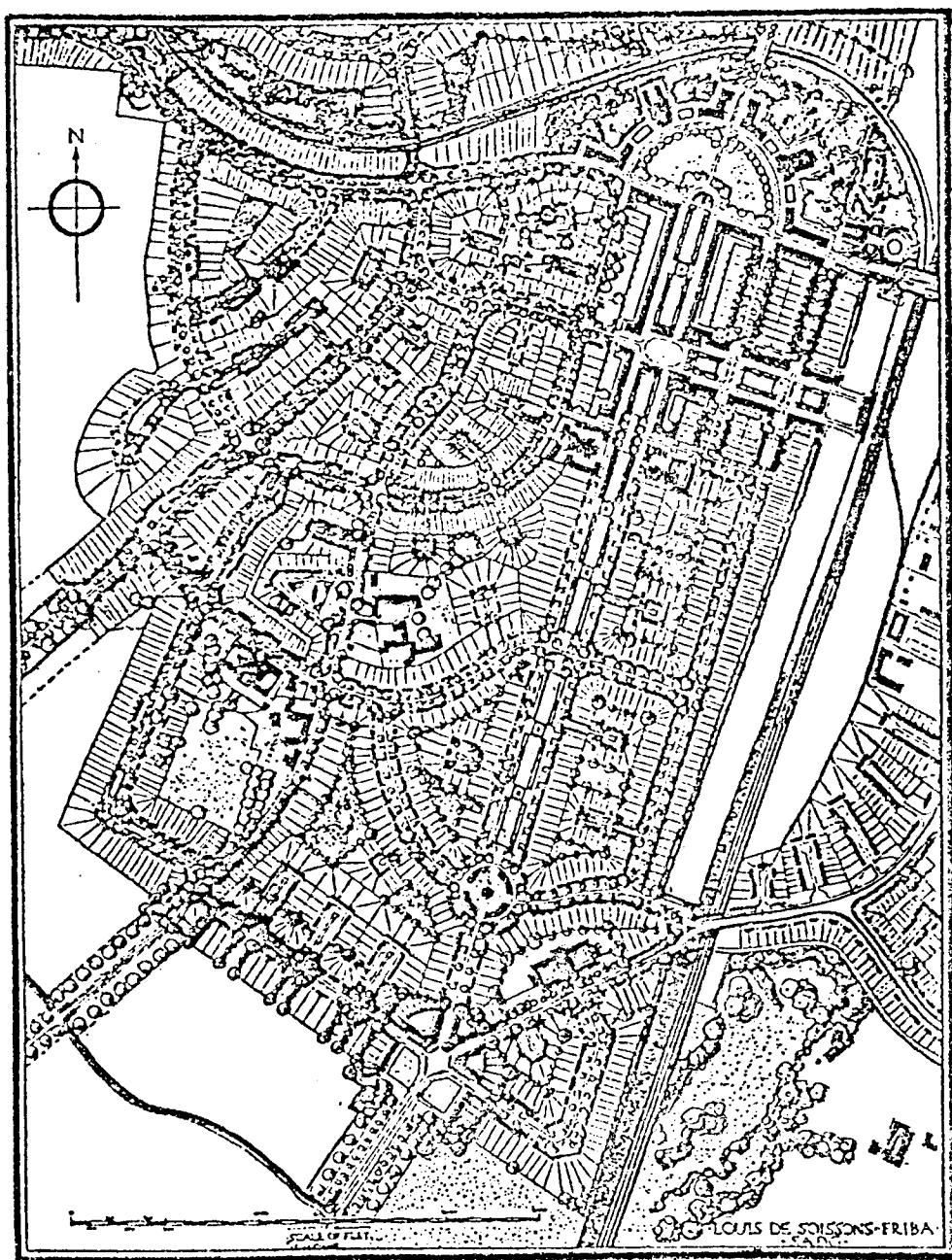


Figure 3-9. A section of Welwyn Garden City as designed by Louis Desoissos. Source: Osborne and Whittick, The New Towns, (Leonard Hill, 1969).

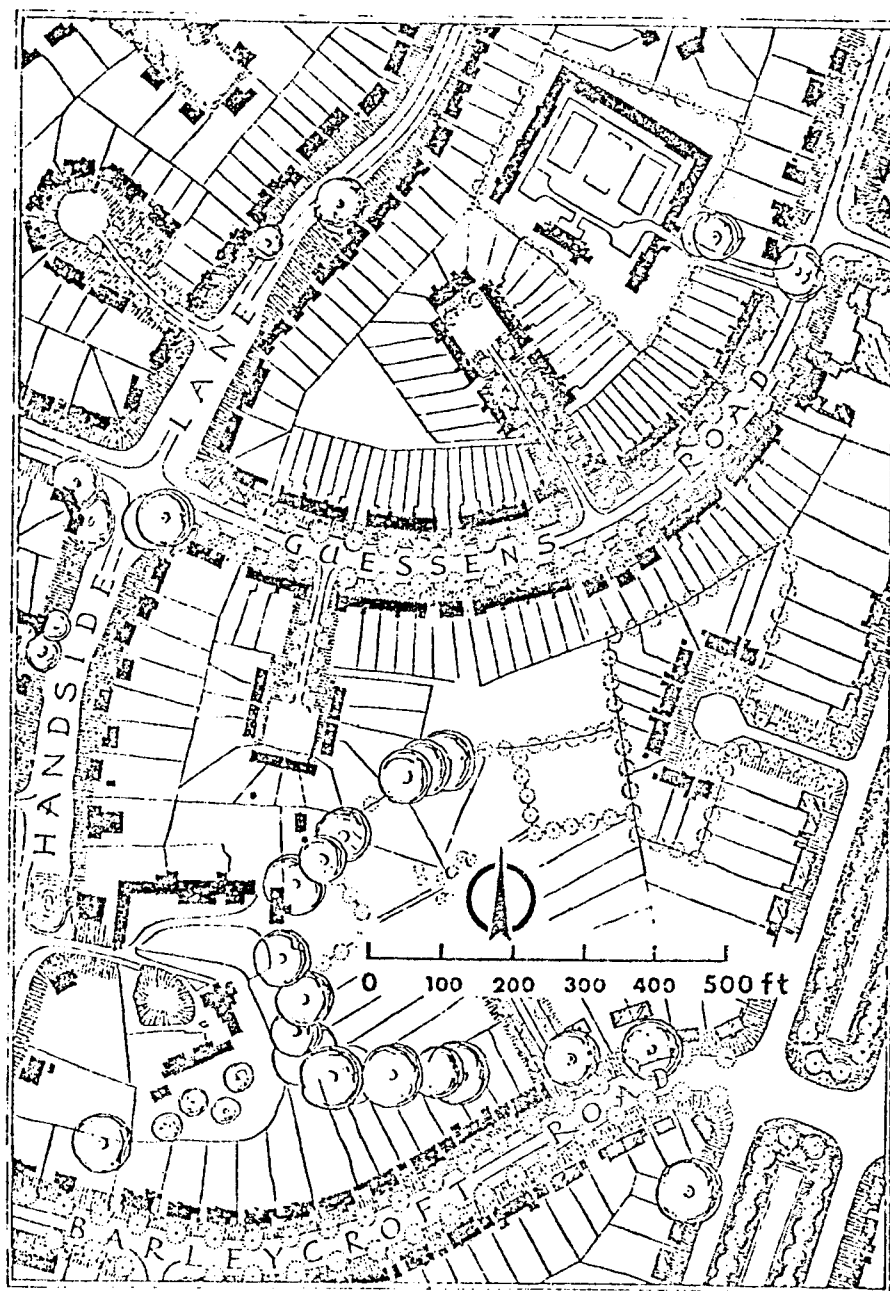


Figure 3-10. Layout of earliest southwest neighborhood of Welwyn Garden City. Note the arrangement of housing and the use of cul-de-sacs. Source: Osborne and Whittick, The New Towns, (Leonard Hill, 1969).

of varied curbs and cul-de-sacs. In addition, the land was leased to residents and held in the hands of the limited dividend company. For twenty-eight years the company insured a quality development by maintaining strict architectural control, insistence upon good building quality, high standards of planning and landscape design, and by providing all of the amenities possible. Finally, the town exhibited some degree of self-sufficiency as industry was secured and employment was provided to many of the residents.

In sum, Welwyn was a tremendous success. It had a prewar population of 14,000, many of whom were employed by local industry. By 1967, Welwyn had a population of 42,000 inhabitants.¹⁰³ However, by that time Welwyn had become primarily a commuting suburb of London. In any event, the development retained a standard of design and harmony above that of Letchworth, as it was visually pleasing, technically efficient, and human in scale.

Conclusion

Garden developments no doubt had a tremendous impact on planning thought during the early 1900's. Although the term "garden" had different connotations to different people, everyone viewed it as a more romantic approach to urban design offering relief from the inadequacies of the city. Similarly, by 1920 there were several successful garden developments based on sound construction practices, collective planning and control, provision of amenities, and social and functional concerns. With these developments well established, the stage was set for a functional development pattern to efficiently accommodate growth in expanding and deteriorating urban areas.

¹⁰³Martin D. Meyerson and Robert B. Mitchell, "Changing City Patterns," The American Academy of Political Science, Vol. 241-43, (September, 1945-January, 1946), pp. 149-162.

CHAPTER IV

THE NEIGHBORHOOD PLAN

I. CLARENCE ARTHUR PERRY

By 1920 planners were searching for an efficient growth scheme to offer relief from the problems associated with urban life. Overcrowding, pollution, crime, industrial waste, and the dangers of the automobile had transformed urban areas into undesirable places to reside. Planners were also aware of the various proposals aimed at physically promoting the "kind of face to face association" which had characterized the village community, but had been difficult to recreate in the city. One of these planners was Clarence Arthur Perry.

Clarence Perry, an advocate for community centers, claimed to have gained his expertise in planning through a life-long study of urban areas. While a member of the Russell Sage Foundation, Perry earned his fame making studies concerning ways to insulate urban areas from the "noise, fumes, and hazards of floods of automobiles." Later he was a planning consultant and a member of the Regional Planning Association of America. While this organization was never a formal affair and consisted primarily of a close circle of friends, the association nonetheless contained some of the most brilliant planning minds in the country "held together by a broad conception of planning." Besides Perry, some of the members included Lewis Mumford, Clarence Stein, Henry Wright, Fredrick Ackerman, Charles H. Whitaker, Alexander Bing, Stuart Chase, Tracy Augur, Catherine Bauer, and Russell Black.

Clarence Perry became concerned with physically and socially defined areas in cities after having lived in Forest Hills Garden Development. As a resident of Forest Hills, Perry became influenced by the design provisions introduced by Olmstead in constructing the desirable residential flavor of this garden development. Perry felt that it would be desirable to recreate many of the elements which constituted Forest Hills in other large-scale real estate developments. As a result, Perry formulated the neighborhood unit concept.

The first public presentation of the neighborhood unit concept formula occurred at a joint meeting of the National Community Center Association and the American Sociological Society in Washington, D.C., December 26, 1923.¹ However, the concept was not officially published until 1929 in Volume VII of the Regional Survey of New York and Its Environs.

The formation of the formula for the neighborhood unit concept began as a guide for playground distribution for New York. However, Perry soon realized that a practical scheme for such a distribution was impossible without a clear definition of community. As a result, Perry synthesized various notions of leading urban specialists in order to create a practical scheme to serve as a guide for community development.

In searching for a rational scheme for urban development, Perry realized that the effective approach to community development was at the "neighborhood level." The neighborhood, although often an ambiguous term, seemed nonetheless to be a living organism to Perry. Similarly,

¹James Dahir, The Neighborhood Unit Plan, (New York: The Russell Sage Foundation, 1947), pp. 23-24.

although it was independent of political boundaries and without formal structure, the neighborhood contained a greater unity and coherence than was normally found in the village or city. Perry, who was an active urban specialist, was also aware that certain central urban areas seemed to naturally acquire different physical characteristics and a more or less distinct group consciousness. While these areas were natural constituents of larger urban areas, Perry observed that the difference between them was due to the kind and amount of association between the residents.²

Perry was keenly aware of the consequences and effects of planning on the various aspects of community life. Perry wrote:

If then city planning dealing, among other things with business or traffic, does generally have incidental effects upon neighborhood life and interests, it would seem clear that the instrumentality of city planning can be directed consciously and effectively, on the one hand toward preventing destruction of neighborhood values already established, and on the other toward the creation and the conservation of these neighborhood interests.³

Perry was searching for a physical solution to enhance efficient community development without sacrificing neighborhood values and family life.

The solution Perry searched for was greatly influenced by the needs of the family. In the past, lamented Perry, neighborhoods had been deficient because planners had ignored certain provisions for meeting residential needs. Conversely, he felt that these deficiencies could be alleviated through the adequate provision of neighborhood services

²Clarence Perry, The Neighborhood Unit: A Scheme of Arrangement for the Family Life Community. In Vol. VII of the Regional Survey of New York and Its Environs, (New York: 1929), pp. 22-23.

³Perry, The Neighborhood Unit, pp. 23-24.

in an economic and harmonious system based on the requirements of neighborhood life. In addition, he felt that the reason the term "neighborhood" had been vague and indefinite was due to this neglected service provision and the lack of definite physical boundaries.

Perry's focus of attention on family life requirements was due to his observation that ". . . family life makes special demands on the urban environment." Perry argued that a family needs more than simply a house and a lot for adequate development. In addition, a family needs such provisions as schools, playgrounds, grocery stores, drug stores, and churches. Furthermore, these provisions should be located so as to be convenient and readily accessible. Families also desire a home in a district where each dwelling has an adequate ". . . space of yard, shrubbery, and general outdoor amenity."⁴ In sum, he concluded that the family is dependent upon facilities which are outside its premises and beyond the reach of its control.

Perry also realized that neighborhood definition was being forced by the automobile and the mobility of urban populations. Due to the increase in the use of the automobile by 1920, Perry felt that there was a need for areas where families could reside without the risk of the dangers of automobile traffic. Since the cellular city had been a result of this growing urban mobility, Perry felt that any development pattern would have to be organized as a distinct unit, cohesive in its physical design, and safe from the dangers of heavy urban traffic.

In order to accomplish the type of community life Perry searched

⁴Perry, The Neighborhood Unit, pp. 25-26.

for, he felt that future residential developments should be large scale, rather than piecemeal operations. He justified his conviction on three reasons:

1. Residential districts needed to be protected from heavy traffic;
2. Economy is realized through mass construction;
3. The ever present desire for the kind of satisfaction which comes from wearing a new suit or from redecorating the living room.⁵

After an extensive study of large scale residential communities, Perry concluded that those which met the needs of family life had certain similar parts serving similar functions. These parts were, as Perry conceived it, universal as the local functions necessary for enhancing family life. Similarly, although others could be found, depending on the individual character of the development, there were four local functions which Perry felt should be provided in all future residential developments. These local functions were:

1. The elementary school;
2. Small parks and playgrounds;
3. Local shops;
4. A residential environment.⁶

Perry was not only convinced of the need for these local functions in future residential developments but also of the need for creating a desirable physical character. This notion was based on the idea that

⁵Perry, The Neighborhood Unit, p. 31.

⁶Perry, The Neighborhood Unit, p. 34.

". . . a beautiful home is not complete without an appropriate residential environment." Through the careful planning of development, Perry felt that new residential neighborhoods could be created as distinct entities and at the same time constitute a unit of the larger urban whole. He felt that this could be accomplished by providing those local functions within the boundaries of the neighborhood unit, while depending on the municipality to provide city-wide services such as government, fire and police protection, and other services which are not economical to provide at the neighborhood level.⁷

In developing the neighborhood unit concept, Perry wished to establish a flexible and elastic formula which planners could readily apply to deteriorated central areas and undeveloped surrounding areas. In addition, he wanted planners to include those elements which he felt necessary to create an ideal residential unit. In order to effectively utilize a formula for large scale residential development, Perry stressed that there should be a mutual cooperation between a construction corporation and the municipality. Perry also felt that the cooperation should be in the form of the city using its powers to obtain and place a large building plot in the hands of the corporation which in turn would erect a residential development of public benefit.⁸

Perry felt that any such formula should meet certain requirements:

1. It should not be a detailed plan of a model residential development, since there are many local conditions which a specific plan would not meet. Instead it should

⁷Perry, The Neighborhood Unit, p. 34.

⁸Clarence Perry, Housing for the Machine Age, (New York: The Russell Sage Foundation, 1939), p. 49.

state principles and standards in definite, objective terms which the professional planner could apply in preparing a plan suited to the topography and other characteristics of a particular site.

2. It should be expressed in city planning terms, since it would deal in building plots, highways, recreation spaces, uses of land, location of public buildings, and those public services which require structures large enough to involve site planning.
3. To be practical, it should describe a project sufficiently self contained so that, with the boundaries fixed, it would be possible to go forward with construction without waiting for the planning of adjacent sites.⁹

Perry also pointed out that his formula was not meant to be used as description of real estate developments or of urban neighborhoods in general, but rather should be used as a guide for planners when considering elements to be incorporated into a development plan. Perry wrote in 1939:

It is not held that in an ideal city plan the whole municipality could be laid out in neighborhood units.-- It is recognized that a city is composed of various areas each of which is devoted to a dominant function . . . nor is it expected that the whole of any residential section would be laid out in unit districts . . . several areas are unsuited for application due to irregular manmade and natural boundaries.¹⁰

Guided by these notions, Perry labored to establish a model plan for ordered urban growth based on the universal needs of family life.

II. THE NEIGHBORHOOD UNIT FORMULA

As previously mentioned, the concept of the neighborhood unit was first published in 1929 in Volume VII of The Regional Survey of New York

⁹Perry, Housing for the Machine Age, p. 49.

¹⁰Perry, Housing for the Machine Age, p. 52.

and Its Environs. The resulting formula, which Perry conceived after an extensive examination of community life, embodied six principles.

These principles were:

1. Size:

Housing for that population for which one elementary school is ordinarily required.

2. Boundaries:

Bounded by arterial streets sufficiently wide to facilitate traffic by-passing the neighborhood instead of passing through it.

3. Open Spaces:

Small parks and open spaces to meet the needs of the particular neighborhood should be provided.

4. Institutional Sites:

Sites for schools and other institutions should be suitably grouped around a central point or common, and combined with the neighborhood recreation area.

5. Local Shops:

One or more shopping districts, if warranted by the population should be laid out at the circumference of the unit, adjacent to similar districts of adjoining neighborhoods.

6. Internal Street Plan:

Each unit should be provided with a special street system, each street being proportioned to its probable traffic load, and the street net as a whole being designed to facilitate circulation within the unit, and to discourage its use by through traffic.¹¹

Although the principles embodied in the concept were fairly straightforward, Perry went into great detail to describe the significance of each of the elements. The remainder of this section presents a more detailed

¹¹Perry, The Neighborhood Unit, pp. 34-35.

examination of these elements, and expresses their relationship to an ideal neighborhood-unit development.

Size and Boundaries

In establishing the elements contained in the neighborhood unit formula, Perry based his concept on the technical consideration of many of the experts of his day. Perry based his unit size on the required population to support an elementary school. He accepted the recommendation of the Committee on Schoolhouse Planning of the National Education Association which wrote:

. . . in cities it is generally agreed that the contributing area for an elementary school may have a radius of one-half to three-quarters of a mile.¹²

In addition, George D. Strayer and N.L. Englehardt wrote that:

. . . children of elementary school age should not be required to travel more than one-half mile to school.¹³

Leading recreation specialists stressed that one-fourth of a mile was the effective service radius for the playgroup of children of elementary school age. Therefore, Perry felt that to be useful it was desirable to distribute small playgrounds throughout the neighborhood, each serving as a satellite to the schoolyard. This provision was established to insure that all families would be able to utilize a playground recreation area within easy access to their homes.¹⁴

Based on these considerations, Perry's model neighborhood unit contained approximately one hundred and sixty acres, or an area one-half

¹²Perry, The Neighborhood Unit, pp. 44-45.

¹³Perry, The Neighborhood Unit, p. 45.

¹⁴Perry, The Neighborhood Unit, pp. 44-45.

mile on a side. (See Figure 4-1.) This figure would insure that if the elementary school was centrally located within the unit it would be only one-quarter of a mile from the furthest family in the unit. In this manner, every child could walk to school without difficulty.

Population Considerations

In considering the necessary population requirements for the neighborhood unit, Perry again based his figures on the recommendations of Strayer and Englehardt. The two had previously written:

Large school buildings, housing a minimum of 1,000-2,000 pupils, should be considered as the desirable parts of a future school plant.¹⁵

In addition, the two educators recommended that a modern elementary school should contain from twenty-four to sixty classrooms. Perry calculated that in order to support such facilities, using forty pupils per classroom as an average, it would require from 960-2400 students of elementary school age. Since the smallest plant to satisfy economic and administrative requirements was considered to have a capacity of 1,000 students, Perry chose this figure as a standard.

Based on the census figures of 1920 which stated that one-sixth of the United States population was of elementary school age, (6-13), Perry simply calculated that a residential population of 6,000 would yield an elementary population of 1,000 students. Furthermore, by applying the then standard of twelve houses per gross acre, or twenty houses per net acre when 40% is devoted to open space and streets,

¹⁵Perry, The Neighborhood Unit, p. 47.

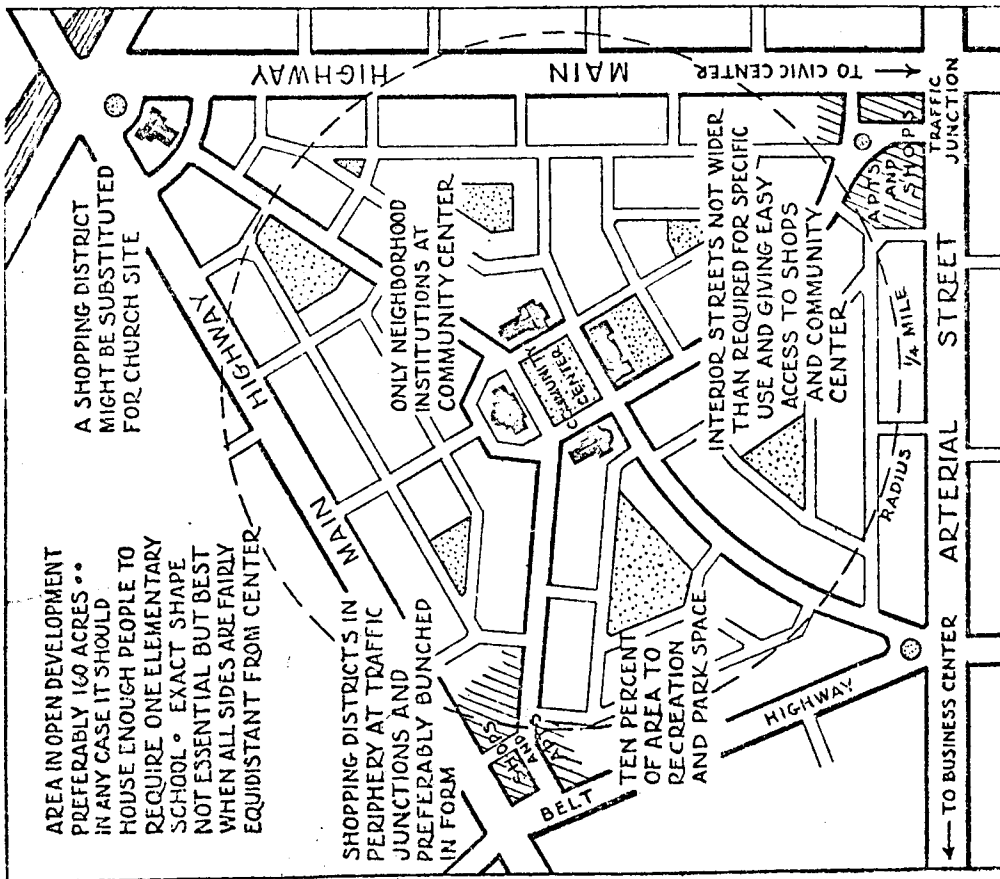


Figure 4-1. Diagram representing the principles in Perry's neighborhood unit concept.
 Source: Perry, "Neighborhood and Community Planning," (Regional Survey of New York and Its Environs, 1929).

Perry found he could easily house this population in his one hundred and sixty acre unit. In this manner not only would all families be within easy access of the school, but the school could be economically and administratively justified in terms of enrollment.

Area and Residential Character

In establishing a neighborhood unit, Perry contended that in any such development there were certain physical aspects which would serve to give the unit a distinct and unique character. In fact, Perry reasoned that there were three ways in which a relationship existed between the size of a district and its residential character.¹⁶ The first type of relationship between an area and its size is physical. This physical relationship pertains to the way area residents and others feel about a particular district. Perry argued the best evidence that a district had impressed people with its character therein. Perry maintained that the lowest limits of this relationship existed at the street or park section level, and that the upper limits of such a relationship could be exhibited in a large scale residential unit as long as its features were unique, distinct, and noticable. Perry stressed that in such a large development care should be taken to develop a physical character through harmonious and unique design.

The second relationship between size and character pertained to the process by which the distinguishing features of the area are created. In this sense, Perry referred to the importance of coordinated development. In order to insure this coordination, Perry encouraged development by a single management adhering to a comprehensive plan. Through

¹⁶Perry, The Neighborhood Unit, pp. 46-51.

such a coordinate effort of continuous and harmonious design, a neighborhood could more likely exhibit a distinct character which would be unique to the development.

The third relationship between size and character pertained to the preservation of the area's residential character. This notion refers to the preservation of an area's residential flavor in the years following initial completion. Perry believed that the area could be best preserved through the use of customary means such as deed restrictions and maintenance of use, height, and coverage zones as established by the municipality. However, he also recommended the establishment of neighborhood associations to enforce restrictions and generally carry on activities effecting the tone of the district. In this manner the area residents could help to mold the character of the area to meet their specific needs.

The physical limits of a neighborhood and its means of demarcation are also important in establishing the unit as a distinct entity. In order to set the physical limits of the neighborhood, Perry insisted that clear and distinct boundaries should be established. In the absence of such clear demarcation of boundaries, Perry warned that residents would not have a clear consciousness of the area. Without such a consciousness of the unit, a dearth of community values will result and the community will be undefined in the minds of the residents.

Perry warned that although planners will be tempted to use natural boundaries to demarcate the unit, ". . . the only safe rule is to line all sides of the unit with highways which are capable of handling all traffic that should by-pass the neighborhood district."¹⁷ Inter-

¹⁷Perry, The Neighborhood Unit, p. 60.

stices should be located between separate units to allow for channels of general circulation. In this area, connector streets would be located to facilitate traffic flowing from unit to unit, and at the same time protect various units from physically infringing upon each other.

Parks and Recreation Spaces

Perry argued that in considering urban play spaces planner must consider street layout, traffic arteries, and land use zoning. Similarly, a planner must then allocate and integrate recreation spaces into a plan just as he would any other type of land use.

Perry maintained that it was vital to include recreational space within the neighborhood unit. In fact, Perry contended that a model neighborhood unit should contain playgrounds, playfields for football and baseball, tennis and handball courts, and sometimes a wading pool. Additional open spaces in the neighborhood would probably be small and exist in the form of circles, ovals, and breathing spots at street junctions. Finally, Perry felt that the ideal neighborhood should contain one well-landscaped green or common to be enjoyed by the entire unit, and located to form the central focal point of the community. In total, Perry stressed that a minimum of ten percent of the total development be employed as usable open space.

Perry instructed planners that recreational spaces could be easily gained by allocating smaller lots to individual residents and through careful planning to minimize land devoted to internal streets. Similarly, Perry stressed that economy could be gained by combining the playground with the school plant facility. Above all, Perry warned planners to avoid rigidity and duplication when planning for

a unit's recreational needs. Perry wrote that, "open spaces should be planned to suit the conditions and needs of the particular neighborhood."¹⁸

In some instances Perry felt that it would be desirable to devote a portion of the neighborhood open space to interior block playspaces. This type of space is common space, located in the center of the block, and restricted to use by the particular families on the block. However, he also advised that there are two ways in which interior playspaces can be provided in a unit development. The first method is achieved by cutting down the depths of individual lots and appropriating the remaining space as an interior play area. The second method, which Perry considered more desirable, involves setting aside of a portion of the development as a whole and then incorporating it into the center of a block of normal-sized lots. Although this method involves using a larger block and a special street plan, it is desirable due to the reduction of streets, sewers, and improvements otherwise required.

As a result of previous developments, Perry was well acquainted with interior block open space. Perry advised:

1. The use of interior blocks is primarily limited to toddlers and babies in single family residential units.
2. On blocks built with multi-family structures interior block spaces are a practical method to give all families the enjoyment of a protected open space.
3. In single family housing blocks there is little gain in providing a common central playground at

¹⁸Perry, The Neighborhood Unit, p. 62.

the expense of a back yard because the back yard is adequate for most childhood activities.¹⁹

Above all, Perry stressed that there was only a need for three to four blocks designed with interior open spaces, and that remaining blocks in the unit should be of regular composition.

In summation, Perry postulated that there were three results to be gained through adequate open space provision within the neighborhood unit. These gains are:

1. An increase in use of recreational facilities due to the proximity to the home;
2. A decrease in pressure on the municipality's existing congested parks and playgrounds;
3. A decreased load on traffic and transportation facilities incidental to the use of larger parks and public amusement resorts.²⁰

Community Centers

Perry, who had been an active advocate of the Community Center Movement, incorporated this concept into his neighborhood unit. The community center in Perry's concept was to be located at the focal point of the community, often in conjunction with the elementary school. This center would function to promote and facilitate community activities through volunteer association for common local interests. Possible uses to be included in such a center are the elementary school, church sites, a branch library, a little theater, and a community house.

In developments utilizing the center in conjunction with the

¹⁹Perry, The Neighborhood Unit, p. 68.

²⁰Perry, The Neighborhood Unit, p. 68.

school, five acres should be allocated as playspace and setting for the center. The grounds should be sufficient to supply experimental gardens, borders of flowers, and add a park-like effect to the approach of the building. Perry reasoned that such a center, located in the central zone of the unit, would serve as the vital core of the community. Not only would such a center be within easy access of all the residents, but it would also serve as a physical and psychological focal point of the community. Here, Perry hoped that local pride would be "seeded" and the center would serve as the heart of the development.²¹

Shopping Districts

Another fundamental element to Perry's neighborhood unit concept was that of the shopping district. Perry believed that neighborhood shops should be in easy walking distance and bunched together in a single center.

These districts should be located at arterial intersections, on the periphery of the unit. In this manner, when strategically placed, one center could function to serve several units. In addition, by locating the district on the edge of the unit, not only is easier access provided to wholesalers and manufacturers, but the neighborhood is protected from intrusion by heavy traffic utilizing the center. Such an arrangement can serve to provide a neighborhood unit with an easy access shopping center, without the nuisance and danger to pedestrians that such a center might otherwise present.²²

²¹Perry, The Neighborhood Unit, pp. 72-75.

²²Perry, The Neighborhood Unit, pp. 76-83.

Street System

The streets constituting the neighborhood unit should serve to allow direct, rapid and uninterrupted movement for through traffic outside the unit. Similarly, the streets should be arranged so as to be safe to the residents of the unit. With these guidelines in mind, Perry's neighborhood unit concept kept both slow and fast traffic in mind.

In order to facilitate fast traffic and keep it foreign to the residential unit, Perry recommended that developers devote some of the development area to bounding arterial highways. Width of these arterial streets should be related to local traffic conditions and the need of general circulation near the area. In this manner both traffic by-passing the unit and the pedestrian within the unit can be accommodated.

On the other hand, internal streets in the unit should be specialized to their probable traffic load. Perry felt that this would not only result in greater safety to residents but that the use of staggered streets, dead-end highways, and cul-de-sacs could contribute to variety and attractiveness of view within the unit. Perry stressed careful planning, with skill and care, to adapt the internal streets to the terrain. In this way, the streets could easily add to the charm, safety, and convenience of the unit. In summary, Perry stated that two principles should apply to all neighborhood unit developments, regardless of size:

1. Donate land for by-passing to keep through traffic out.
2. Shape highways within so that local traffic will

serve residents safely.²³

Summary

Clarence A. Perry's formula for the neighborhood unit concept was established as an elastic pattern. It was to be applied by planners based on local considerations and conditions. Although his model unit was conceived as a one hundred and sixty acre development, serving a population of 5,000-6,000 persons, his illustration was only hypothetical. The unit provided schools, institutional sites, shopping centers, open recreational areas, and safety from the automobile. Together the elements in the unit offered a possible relief from chaotic urban conditions.

Perry felt that governmental assistance should aid in bringing about rapid application and utilization of the concept as a tool for urban development. In general, Perry's concept:

1. Describes a unit in population in relation to area;
2. Is sufficiently definite to be easily recognized;
3. Is elastic enough to vary with density;
4. Is organic in its composition.²⁴

In addition, Perry felt that the scheme offered the following advantages:

1. Safety for protected residential districts;
2. It promotes contact between neighbors;
3. It promotes development of character for younger generations;

²³Perry, The Neighborhood Unit, p. 88.

²⁴Perry, The Neighborhood Unit, pp. 123-129.

4. It introduces sunlight planning, reduces congestion, and inserts open spaces into crowded areas.²⁵

In summation, the concept was an ordered development solution for both center city and rapidly urbanizing areas, which could be economically applied and at the same time serve to promote family life. Perry had created ". . . a residential cell capable of building up so strong a community life within itself that it would be capable of resisting the tendencies of depreciation and disintegration that might take place in the city around it."²⁶

III. CLARENCE STEIN

Another early pioneer to experiment with the notions presented by Clarence Perry was the New York architect/planner Clarence Stein. Stein, who had a tremendous influence on planning thought during his lifetime, served as a consultant, developer, architect, chairman of the State Commission of Housing and Regional Planning in New York, and like Perry was a member of the Regional Planning Association of America. During the early 1920's Stein began to search for a constructive means to facilitate a new urban growth pattern. This concern resulted in a trip to England to visit the garden city developments which had been constructed World War I. He returned to the United States "a disciple of Ebenezer Howard and Raymond Unwin," with the desire to

²⁵Perry, The Neighborhood Unit, pp. 123-129.

²⁶James Dahir, Communities for Better Living, (New York: Harper and Brothers, 1950), p. 215.

create a garden city in America.²⁷

Stein had searched for a new growth pattern for this country because he felt that previous endeavors in large scale real estate development had been both uneconomical and impractical in terms of modern day demands. However, Stein was also convinced that the shortcomings of past endeavors could be corrected and avoided through new design patterns for the future. Not unlike Perry, Stein felt that future residential design patterns should be based on a comprehensive plan, be democratic, and insure a setting for community life removed from the daily flow of urban activity. Only in this manner could the individual actively participate in the common life.²⁸

Inherent in Stein's philosophy of residential development was a concern for spaciousness. His concern was to be expressed not only through the provision of adequate light, air, and natural spaces designed for leisure hours, located safely and conveniently to all homes. Stein was convinced that only through such a spacious arrangement could the pedestrian be safely separated from the annoyance and danger of the automobile.²⁹

Stein stressed that modern developments should practice economy in the provision of unessential elements in order to permit the equipment for the healthful and wholesome family and community life. He was also convinced that modern demands required that new residential

²⁷ Clarence Stein, Towards New Towns for America, (Cambridge, Mass.: The MIT Press, 1957), p. 19.

²⁸ Clarence Stein, "City Patterns Past and Future," New Pencil Points, Vol. 23, (June, 1942), pp. 52-56.

²⁹ Stein, "City Patterns Past and Future," pp. 52-56.

developments be built in undeveloped areas. Similarly, he held that it would be more economical to rebuild the problem areas of large cities rather than correct the old because ". . . it is impractical to build the new pattern in the old city at present due to the high but false value placed on land by unrealized dreams of expansion."³⁰

Stein felt that older large cities in this country were facing social and economic bankruptcy. Similarly, like Ebenezer Howard, he felt the solution to the social and economic crisis was the establishment of series of smaller compact towns containing from 7,000-10,000 residents. He predicted that older, large cities would eventually be dispersed and rebuilt in this manner due to the efficiency of their operation.³¹

Stein was positive that the changing techniques and new growth patterns would eventually result in a new city form. He felt that the new form would be dependent upon the concept of the neighborhood. Similarly, whereas in the past urban development had been dependent upon the notion and scale of lot and city, the new pattern would stress the relationship of neighborhood and region. As a result, Stein hoped that the new city form would consist of smaller, more efficient regional cities, as opposed to a megalopolis, operating as entities separated from each other by a greenbelt, and simultaneously as a regional unit connected by efficient channels of transportation. These regional cities would have the advantage of containing both rural and urban

³⁰ Clarence Stein, "The Case For New Towns," The Journal of the American Institute of Planners, Vol. V., (1939) pp. 39-44.

³¹ Stein, "The Case For New Towns," pp. 39-44.

elements, being small enough to insure neighborliness without sacrificing diversity.³²

Stein advocated that the new regional town should contain several key development features. These features included the elements of:

1. Openness:

with roads and parks fitting together for freedom of movement and repose;

2. Consolidation:

of neighborhoods into a town without losing the identity of the neighborhood;

3. Specialized Superblocks:

with the central parks and open spaces determining the location of roads;

4. Roads Serving:

instead of dominating, each having a specialized form.³³

Stein felt that the new city pattern should be flexible rather than rigid or fixed. In this manner, the development would be able to change as technological developments in building and planning occur. Similarly, he hoped that physical patterns could efficiently work to serve the population by providing adequate social and recreational facilities and amenities within their design.

These notions helped to shape Stein's philosophy and desire to create a new urban development pattern. Stein wrote:

All that we know of the future is that we do not know just what technical change will determine its detailed pattern, but we do know that the requirements of human

³²Stein, "City Patterns Past and Future," pp. 52-56.

³³Stein, "City Patterns Past and Future," pp. 52-56.

needs and human desires for closer contacts with nature as well as the flexibility to meet changing techniques, indicate the pattern of limited sized units, surrounded by open space and close to all activity.³⁴

With his philosophy established, Stein wished to design a garden city in the United States. To this end, he persuaded Alexander M. Bing, who had previously formed The City Housing Corporation, a limited dividend housing corporation, to construct a garden city. As a result, Stein and his close associate Henry Wright planned for the development of their first garden development, Sunnyside Gardens, on a seventy-seven acre site in the borough of Queens in New York. (See Figure 4-2.)

Sunnyside was planned conceptually as a garden city of moderate priced homes within easy access of New York City. In reality, the development became an experimental field laboratory located with New York's rigid gridiron street system. As a result, Stein's desire fell short as he was forced to conform to this framework.³⁵

The first unit of Sunnyside was completed in 1924 as an independent residential community. The design featured narrow buildings encircling the perimeter of a large block leaving open space in the interior for the common use of the residents. This space was intended to be utilized as playspace and dedicated to the residents under control of block trustees. In the second and third years of the development, Stein continued to utilize a common block but it was adapted so that the 900 foot blocks were divided into quadrangles and almost completely enclosed. In sum, these blocks served to form an open park

³⁴Stein, "City Patterns Past and Future," pp. 52-56.

³⁵Stein, Towards New Towns for America, p. 22.

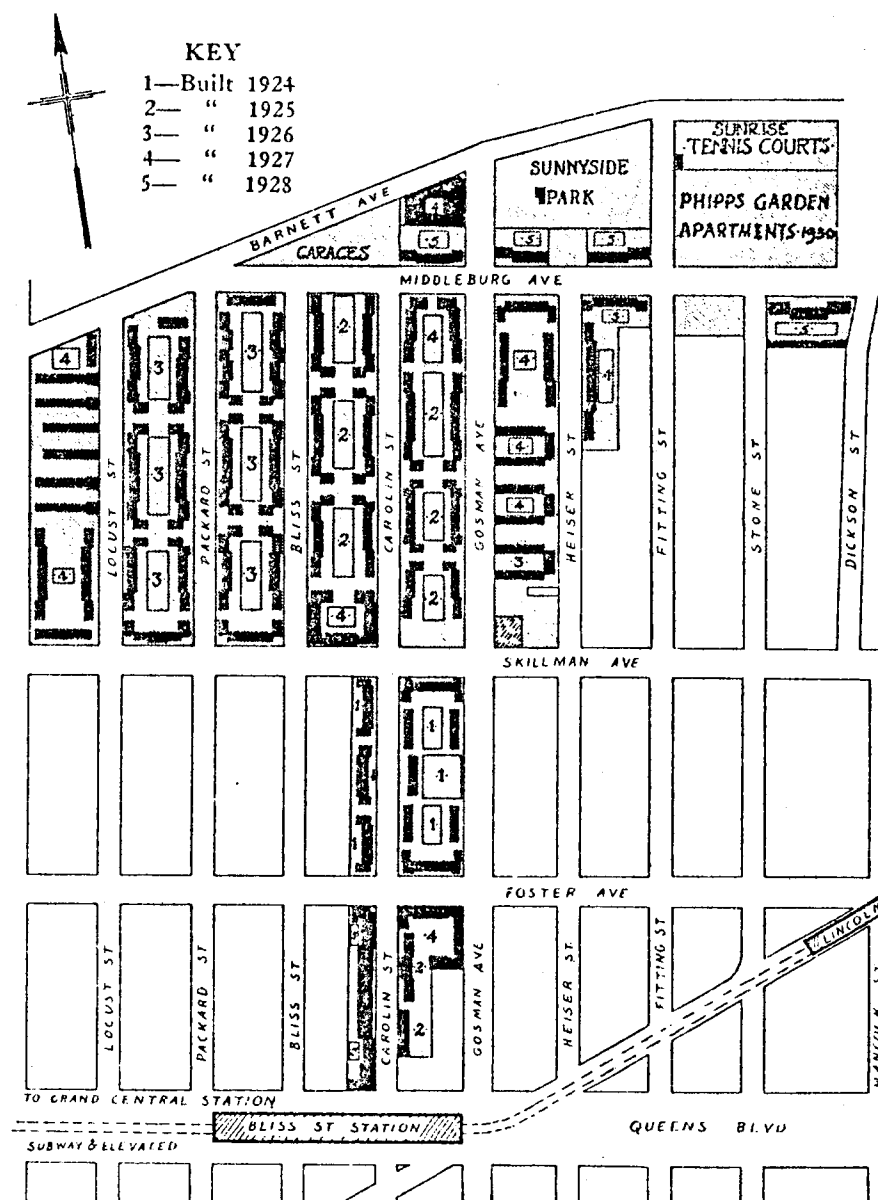


Figure 4-2. General plan of Sunnyside Gardens showing the years in which various stages of development were completed. Source: Stein, Towards New Towns for America, (The MIT Press, 1971).

system of approximately six acres.

The interior of the blocks were 120 feet wide from building to building. Since each unit had a garden plot of thirty feet, the remaining central area of sixty feet was designated as common rest area. Access to these central blocks was provided by staggered interior paths. To insure preservation of these open areas, garages were located approximately 1,000 feet from the residential units. In the latter years, to avoid intrusion from neighboring developments, Stein designed the courtyards to open directly off the street with building units surrounding them on three sides. Similarly, service lanes to these units were provided in the form of paved streets which led to rear kitchen and cellar entrances.³⁶

Since the site was zoned industrial, Stein was free to vary the height and design of his buildings at Sunnyside Gardens. His design featured a mixture of housing types including one, two, and three family units. In many instances, the one, two, and three bedroom units were purchased by a single owner who would rent them to anxious tenants.

Sunnyside Gardens was initially a success. The population was primarily from the moderate income group, with a median annual income of \$3,000 in 1926. Since it was an experiment, the physical plan and the community plan grew together. Separate block organizations provided social functions with block centers serving as a residential meeting place. Later, all residents became part of the Sunnyside Neighborhood Association which proved to be more practical

³⁶Stein, Towards New Towns for America, p. 24.

than the separate block associations which were first instituted.

In total, Sunnyside Gardens provided homes for 1202 moderate income families. However, the depression forced many families to lose their homes. This resulted in internal conflict within the development. As a result, Sunnyside never quite regained its sense of unity as a neighborhood. Even so, Sunnyside is still a beautiful development within a dense urban area, providing peaceful living in the heart of a thriving metropolitan area.³⁷

IV. RADBURN: THE FIRST NEIGHBORHOOD UNIT

The first attempt to construct an actual development on the elements contained in the neighborhood unit concept was by Clarence Stein at Radburn, New Jersey. In 1928, after its early success at Sunnyside Gardens, the City Housing Corporation ambitiously began to construct a limited sized town, planned for working and living, surrounded by a greenbelt, as described by Ebenezer Howard. Meanwhile, Herbert Emerich, the corporation's general manager, sketched a rough drawing of a residential superbloc which formed a physical neighborhood. This conceptual design was to eventually form the Radburn idea.³⁸

With their goal established and after an examination of fifty possible sites, the City Housing Corporation purchased a farm tract of approximately 1,280 acres. This site was located in Fairlawn, New Jersey, approximately sixteen miles from New York. This site was

³⁷Stein, Towards New Towns for America, p. 24.

³⁸Stein, Towards New Towns for America, p. 41.

well suited for development based on Perry's notion as there were few physical limitations. More important, the area had no street plan or zoning ordinance to hinder the development of a functional design plan. Unfortunately, the greenbelt which was originally planned had to be abandoned except for a narrow parkway to the north and a recreational field to the south due to the lack of sufficient space on the site.

The elements of design which Stein incorporated at Radburn were perhaps his most important contribution to the neighborhood unit idea and new town development in general. These design elements were:

1. Design based on the superblock;
2. Specialized roads designed and built for specific use;
3. Complete separation of pedestrian and automobile;
4. Houses turned and arranged to face gardens leaving service entrances to rear access roads;
5. Large open areas in the center of the superblock to be joined as a continuous park.³⁹

Although Radburn was to contain three neighborhoods housing approximately 25,000 people, it did not begin with a complete plan. This was due to the short time period between obtaining the land and beginning the development. However, Radburn incorporated the notion of the neighborhood unit as its basis for physical design. (See Figure 4-3.) Stein specified that Radburn be designed as a series of neighborhood units, with one-half mile radius, centering on a neighborhood elementary

³⁹Stein, Towards New Towns for America, pp. 41-44.

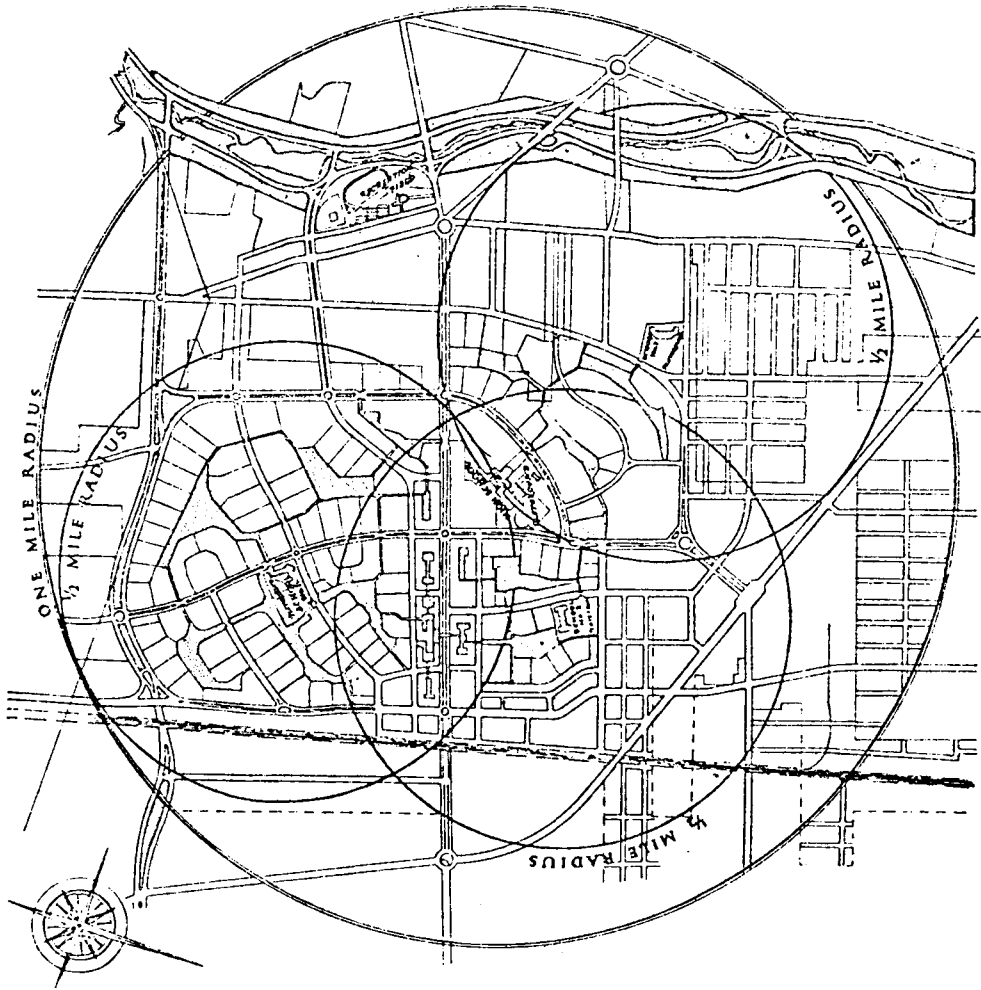


Figure 4-3. The Radburn general plan. The circles represent the three planned neighborhoods which were the basis for the plan's design. Source: Stein, Towards New Towns for America, (The MIT Press, 1971).

school and playground. The size of the unit, as Perry specified, was based on the number of children to be serviced by the elementary school, approximately 7,500-10,000 people. Access to and cohesiveness of the development was insured through a system of over- and under-passes which served to connect the neighborhoods without crossing a single street.⁴⁰

Radburn was designed with an educational-cultural community center situated equidistant from the three proposed elementary schools and no more than one mile from all homes. A regional commercial center was designed as a market center on a state thoroughfare at the main entrance of the development. A planned industrial site was proposed and was to be located south of the state highway with access to be provided by this highway and a railroad spur.⁴¹

Although the prevailing theme at Radburn was "economy of space," single housing types were chosen. These houses were both free standing and attached, designed with two entrances, one side for service and the other for peaceful living. Recreational facilities in the development included two swimming pools, two playgrounds, tennis courts, a six and three-quarter acre athletic field, and a plaza building which housed stores on the lower level with the upper level serving the population as a community center.⁴²

The City of Fairlawn could not supply the needed service improvements for Radburn. Therefore, the City Housing Corporation created the

⁴⁰Stein, Towards New Towns for America, p. 47.

⁴¹Stein, Towards New Towns for America, p. 51.

⁴²Stein, Towards New Towns for America, pp. 63-65.

Radburn Neighborhood Association to insure property maintenance and provide public services. This association was empowered to impose an annual service charge to all residents, never to exceed one-half of the current borough taxes, to maintain necessary services, park and recreational facilities, and to interpret and apply protective restrictions. This association was to be self governed by a self perpetuating board of trustees with the powers of municipal government, excluding taxation. At present, most of the services, except for park and walkway maintenance and the Radburn Voluntary Fire Department, have been taken over by the City of Fairlawn.⁴³

During its earliest years, Radburn became a moderate income development. The average annual income at the time of completion was \$2,000-\$5,000. Residents were primarily white collar workers with similar lifestyles. This similarity of lifestyle led to the formation of a citizen association to promote community social life. This association provided a wide variety of community activities and events to approximately 97 percent of the early residents.⁴⁴

Despite what appeared to be early success at Radburn, construction of the site was halted before the town was completed. (See Figure 4-4.) As a result of the economic depression of the thirties, the City Housing Corporation was forced to declare bankruptcy. The town therefore had several shortcomings. Radburn lacks a complete greenbelt, it was never able to secure industry, and the underlying land, except for the main block common, was not retained in common ownership.⁴⁵ However, even

⁴³Stein, Towards New Towns for America, pp. 63-65.

⁴⁴Stein, Towards New Towns for America, pp. 60-62.

⁴⁵Stein, Towards New Towns for America, pp. 67-69.

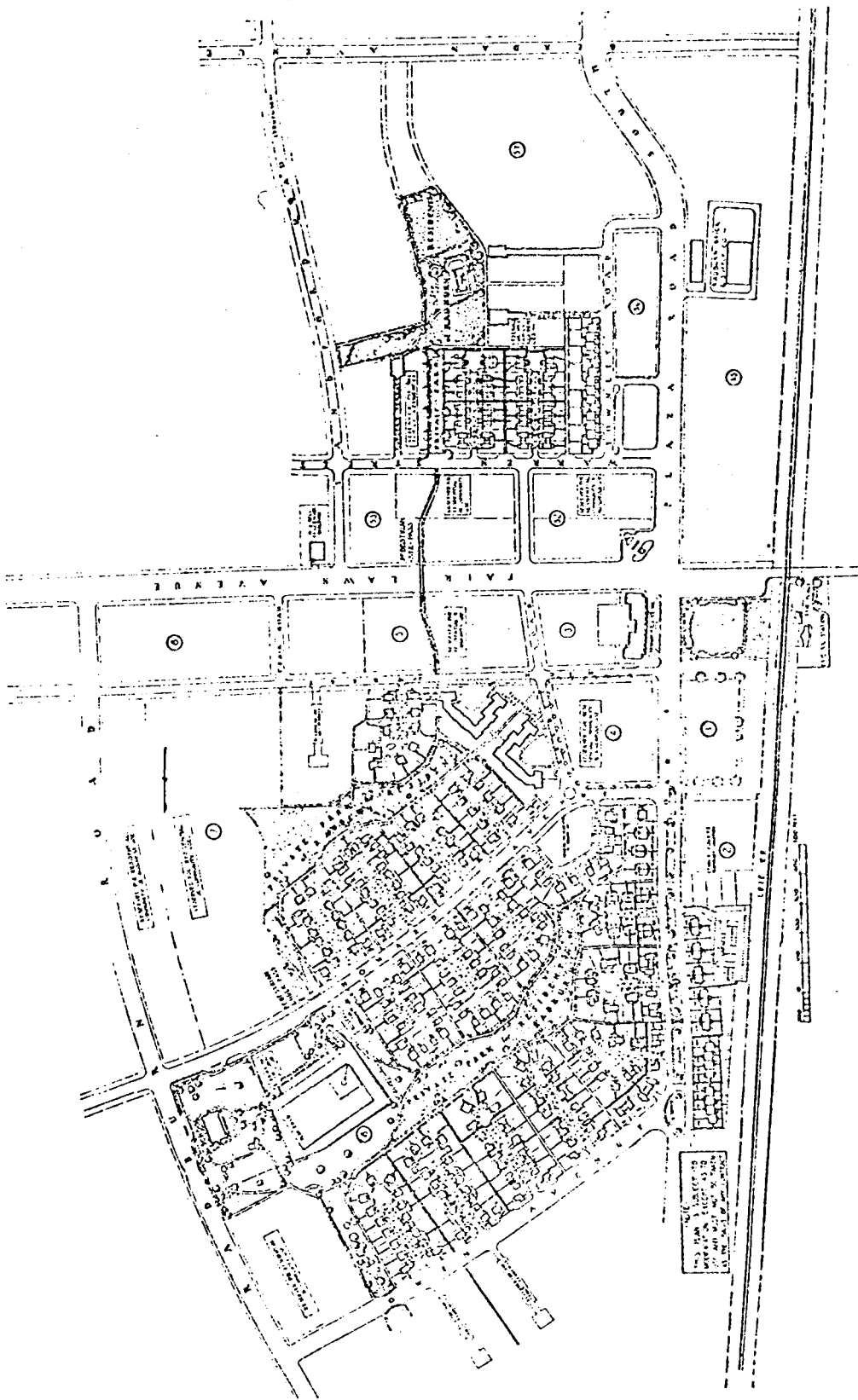


Figure 4-4. The plan of Radburn which was completed by 1930. Source: Stein, Towards New Towns for America, (The MIT Press, 1971).

with Radburn's shortcomings, the two completed superblocks retained a beauty of design and unity of neighborhood which make it a highly desirable place to reside even today. More important, Radburn stood as a living example of the elements which could be incorporated in a development to offer the residents safety and convenience, without additional cost to the developer. Furthermore, proponents viewed Radburn, although different in scale, as a living example of Clarence Perry's neighborhood unit idea. Although never completed, Radburn would serve as a model for future residential design.

CHAPTER V

CONCEPT APPLICATION

I. GREENBELT CITIES: FEDERAL APPLICATION

By 1930, three predominant ideas had evolved in the American school of city planning in terms of ordered community growth solutions for urban areas. These three ideas, Howard's garden city, Perry's neighborhood unit concept, and Stein's Radburn idea each had promised a "more suitable living environment" for urban dwellers. While these theories had been established and a few "ideal" developments had been undertaken utilizing elements from one or more of these concepts, no development, save Radburn, had attempted large scale construction based on the concept of the neighborhood unit.

During the years following the formation of the neighborhood unit concept, cities in the United States were faced with the problems associated with the Great Depression. One of the greatest problems facing these cities was that of housing the displaced farmer. Soil erosion, mechanization of labor, overproduction in the twenties, and changing consumption habits had made farming unprofitable. As a result, rural populations flocked to cities in search of jobs and relief. The influx in urban population forced the city to become the "corrective for rural ills."¹

¹David Myhra, "Rexford Guy Tugwell: Initiator of America's Greenbelt New Towns 1935-1936," The Journal of the American Institute of Planners, Vol. 40, (May, 1974), p. 177.

Franklin D. Roosevelt's New Deal Administration was forced to deal with the displaced farmer. Although the farm family had turned to the city for economic relief, often the urban condition proved no better than those they had left behind. Not only did they face a dearth of housing and employment opportunity, but in many instances "unimaginative city planning had created urban conditions worse than those the farmer had left."²

In 1932, Roosevelt employed the services of Rexford Guy Tugwell, an agricultural-economist on the faculty of Columbia University. Tugwell was employed as an economic advisor to Roosevelt. In 1933 Tugwell became Undersecretary of the Department of Agriculture and on April 30, 1935, director of the newly formed Resettlement Administration.

As director of the Resettlement Administration, Tugwell recognized the forces pushing the farmer to urban centers and as a result, sought to prepare for the inevitable growth.³ Tugwell believed that the solution to the problem of the displaced farmer would be through the creation of new urban resettlement projects to house in-migrating farm families. In this manner, the family could be adequately housed while the head of the household could find employment in the nearby urban employment centers.

Tugwell strongly believed in the endless opportunities of cities through controlled growth. His idea was to create satellite communities on urban fringe areas to house both the rural migrant and the urban slum dweller. As director of the Resettlement Administration, he set about

²David Myhra, "Rexford Guy Tugwell: Initiator of America's Greenbelt New Towns 1935-1936," p. 178.

³David Myhra, "Rexford Guy Tugwell: Initiator of America's Greenbelt New Towns 1935-1936," p. 179.

this task. Tugwell wrote:

Wouldn't it be better to capitalize on our already existing social and economic investments in our larger cities, and construct examples of how housing might be surrounded by a more pleasant environment.⁴

With this philosophy, Tugwell initiated the Federal Greenbelt New Town Program.

The Greenbelt New Town Program began essentially with the creation of the Resettlement Administration April 30, 1935, when Roosevelt signed Executive Order 7027. Funding fell under the Emergency Relief Appropriations Act of 1935. Although this act made no specific reference to new town construction, it did mention housing construction, roads, streets and highway construction, irrigation and conservation projects and other forms of relief.⁵

Although Roosevelt had originally approved the construction of eight model communities, funding proved inadequate. While the cost of constructing eight communities would have amounted to \$68 million, only \$31 million was allocated. As a result, three of the original projects were abandoned before work began. Later, two of these five were dropped, one near St. Louis due to a disagreement with the St. Louis Planning Commission and one at Greenbelt, New Jersey when a federal court order halted construction on the site.⁶

⁴Myhra, "Rexford Guy Tugwell: Initiator of America's Greenbelt New Towns 1935-1936," p. 171.

⁵John R. McFarland, "The Administration of the New Deal Greenbelt Towns," Journal of the American Institute of Planners, Vol. 32, (July 1966), p. 218.

⁶McFarland, "The Administration of the New Deal Greenbelt Towns," p. 219.

Extensive preliminary research by the Resettlement Administration's planning division formed the basis for final site selection. The selection process involved two steps:

1. Selection of major cities near which the projects were to be constructed.
2. Selection of the particular site within this region.⁷

The first step was based on a general economic study of the nation's one hundred largest cities. Factors considered were population, employment growth potential, housing needs, labor policies, general civic attitude, and local governmental structure. The second step of the site selection process was based on population trends, topography, land prices, and availability of employment. After considering all these factors, the final sites chosen for the greenbelt communities were on the outskirts of Washington, D.C., Cincinnati, Ohio, and Milwaukee, Wisconsin.

When actual development of the greenbelt communities began, there was no local community structure to hinder operations of the federal planning staff. As a result, the planners enjoyed great flexibility in designing the new towns. The federal government freely chose the sites, acquired the land, planned, financed, and constructed the communities. Each of the communities contained a town center, town common, community buildings, major commercial facilities, and an encircling residential structure, all provided by the construction division of the Resettlement Administration. In addition, the administration supplied the services normally provided by public utility companies.

⁷McFarland, "The Administration of the New Deal Greenbelt Towns," p. 220.

When the greenbelt projects were constructed, the towns were incorporated under the laws of the state. However, since the federal government owned the sites, a unique governmental relationship existed. For example, in the first years after incorporation the federal government bore the major repairs for the towns while the local governments were required to contribute but minor services and maintenance. Similarly, since the land was owned by the federal government, it was not subject to local zoning or condemnation by local government. Furthermore, the localities were not authorized to tax federal land holdings and as a result could not levy property taxes. Rather, in 1936 Congress authorized the Resettlement Administration to make payments to the localities in lieu of taxes based on the cost of providing municipal services.⁸

Opposition in the Courts

While the Greenbelt Projects were an incredible operation, the Resettlement Administration nonetheless proved to be short lived. The beginning of the demise of the agency occurred when the construction of Greenbrook, New Jersey was halted by a federal court order. Greenbrook had been planned as the largest of the greenbelt towns with a planned population of 20,000. It was to have been located between New Brunswick and Princeton, New Jersey, in the Township of Franklin. However, the small township challenged the federal construction of the greenbelt project in court on the grounds that:

1. The new town would change the township from rural to urban over night, adding to the costs of government without a compensating source of revenue.

⁸McFarland, "The Administration of the New Deal Greenbelt Towns," p. 223.

2. Residents felt that existing property values would be lowered if the federal subsidized new towns were constructed.
3. By forcing an unwanted development on it by the federal government, the township would be in danger of losing its home rule.⁹

On May 18, 1936, the U.S. Court of Appeals in the District of Columbia, in a three to one decision, enjoined the Resettlement Administration from proceeding with construction at Greenbrook. The court ruled that:

The provision of the Emergency Relief Appropriations Act of 1935, constituted an invalid decision to the president of the congressional power to legislate because:

1. There was no adequate definition of the subject;
2. There was nothing in the act directly prescribing the powers and duties of the president with respect to housing; and
3. The declaration of purpose was too vague.¹⁰

Furthermore, the court held that the federal government had no powers to engage directly in housing activities for two reasons:

1. Such activities are not within the scope of the powers granted to Congress because housing projects have no connection with the general welfare; and
2. Such activities are reserved for action by the states alone . . . Therefore, legislation by Congress for that purpose is forbidden.¹¹

Although the attorney general limited the decision specifically to the Greenbrook Project, allowing other projects to continue with the funds

⁹Myhra, "Rexford Guy Tugwell: Initiator of America's Greenbelt New Towns 1935-1936," pp. 184-185.

¹⁰Myhra, "Rexford Guy Tugwell: Initiator of America's Greenbelt New Towns 1935-1936," pp. 184-185.

¹¹Myhra, "Rexford Guy Tugwell: Initiator of America's Greenbelt New Towns 1935-1936," pp. 184-185.

already allocated, no new ones could be initiated because the decision declared the Emergency Relief Appropriations Act unconstitutional.

Due to continuous attack from all sides, Tugwell resigned his position as director of the agency. Congress followed suit by dissolving the agency. By 1938 most of the federal construction was completed in the three remaining greenbelt projects. Between 1938 and 1952 the tenants were selected, local governments organized, and service facilities were taken over by the towns.

By 1940 the successor of the Resettlement Administration, the Farm Security Administration, permitted private development of the greenbelt sites with the stipulation that the development company would complete at least 200 homes, would accept a 99 year lease, and would permit the Farm Security Administration to review the house plans.

In 1944, Congress enacted a statute allowing residents to receive deeds when they tendered full payment of the purchase price of homes. Furthermore, between 1947 and 1948 the Public Housing Administration spent \$79,000 on survey work to prepare to sell the towns to private developers. In 1949 Congress authorized the Public Housing Administration to sell the towns. The undeveloped acreage was sold to private developers between 1949 and 1953.¹²

The Resettlement Administration set unprecedented speed in constructing the greenbelt projects. Furthermore, these projects represented the federal government's initial attempt at new town development. Although not complete garden cities as Howard had envisioned, they are nonetheless satellite suburbs made possible by the effort of Tugwell and

¹²McFarland, "The Administration of the New Deal Greenbelt Towns," pp. 219-221.

the Resettlement Administration. The projects offered an ordered growth solution combining principles of the garden city idea, neighborhood unit concept, and the Radburn idea. In describing the greenbelt developments, Clarence Stein wrote:

The three towns are among the best applications of the principles laid down by Clarence Perry . . . each greenbelt town in the beginning was, in effect, a single neighborhood. The focus of each is a planned neighborhood center consisting of school, community buildings, shopping center, government and management offices, and principal recreation activity.¹³

American City Magazine went so far as to write:

Distinguished by the fact that they comprise complete communities, with stores, shops, and community buildings as well as residences, the Resettlement Administration's projects constitute one of the most striking contributions to public housing in America.¹⁴

Greenbelt, Maryland Site Plan

The first of the Resettlement Administration's new town projects was Greenbelt, Maryland, located five miles north of Washington, D.C. In 1935 the federal government gradually acquired approximately 3,300 acres from several owners to construct the first of the new towns. The site chosen, overworked farmland selling for an average of \$90 per acre, constituted a high crescent shaped plateau. As a result, the site planners had opportunity to orientate the houses to take full advantage of the sunshine and prevailing winds. Every road was designed to follow the natural contours of the land. Similarly, due to imaginative site

¹³Clarence Stein, Towards New Towns for America, (Cambridge, Mass.: The MIT Press, 1957), p. 150.

¹⁴"Site Plans of Greenbelt Towns," American City Magazine, Vol. 51, (February 8, 1936), p. 58.

planning, the entire development only contained six miles of roads.

(See Figure 5-1.)

The plan for Greenbelt contained several of the principles of Stein's Radburn and Perry's neighborhood unit concept. The street system at Greenbelt featured wide spacing to form a series of irregular shaped superblocks. The interior of these blocks were left open with development occurring at the periphery. In addition, a series of footpaths and over-passes ran through the interior of these blocks serving to unite the residential area. These blocks were intentionally utilized to form the physical basis of the neighborhood, which consisted of approximately 1,000 families.¹⁵

The center of the crescent shaped town focuses on the town common and business center. The business center houses stores, service facilities, a school and community center, and recreation field. Furthermore, it is located within easy walking distance to all homes in the area. Double crescent shaped roads encircle this center providing easy access for all the residents. To the west of the center is an artificial lake which serves as a community recreation area. In the southern portion of the development, fertile tracts were allotted to residents to be used as garden plots. Finally, wooded areas were for the most part left uncut to be used as natural recreation areas for the town's residents.¹⁶

The town's water supply came from the nearby public utility of the Washington Suburban Sanitary Commission. The topography of the site allowed the utilization of a gravity system which carried water

¹⁵Stein, Towards New Towns for America, p. 150.

¹⁶"Site Plans of Greenbelt Towns," pp. 57-58.

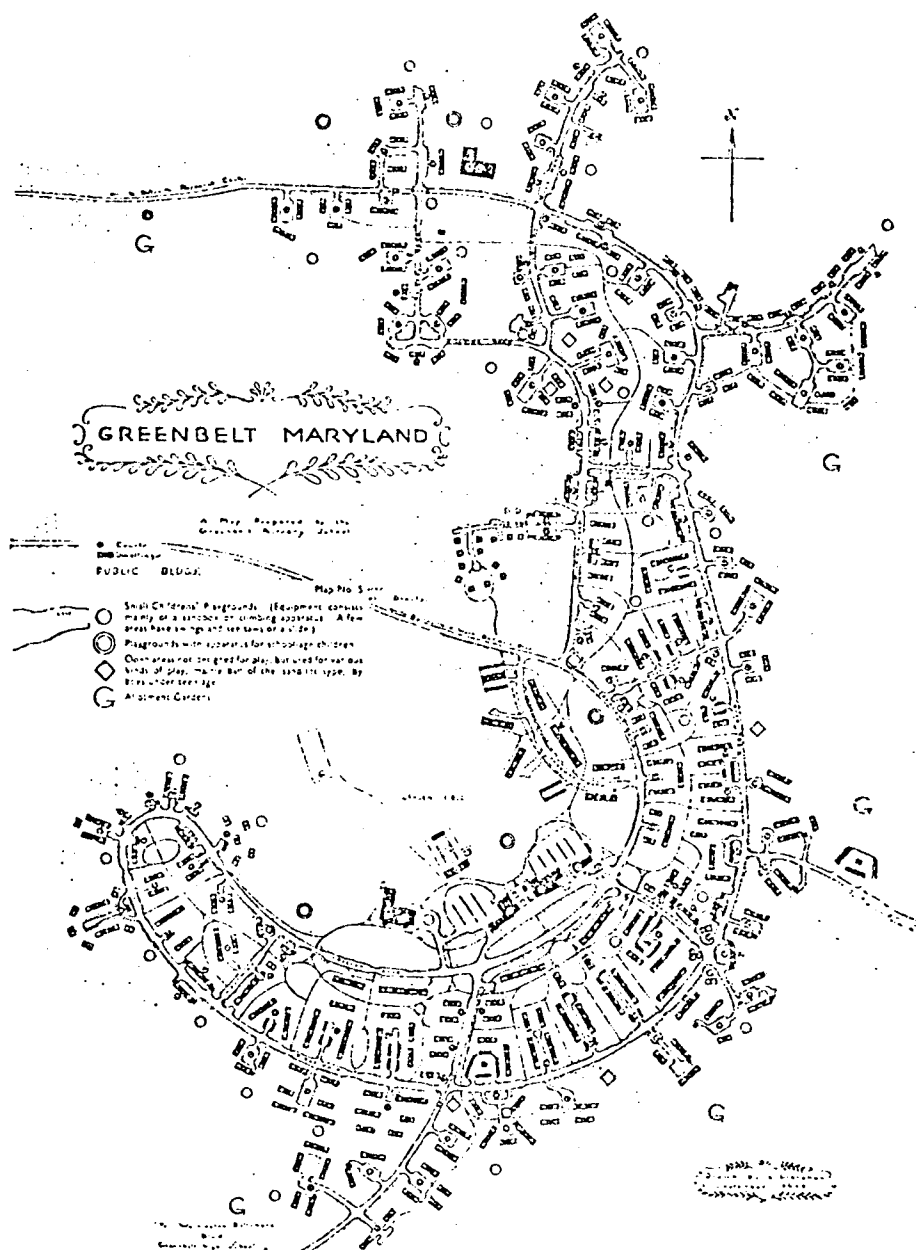


Figure 5-1. The general plan of Greenbelt, Maryland. Source: Stein, Towards New Towns for America, (The MIT Press, 1971).

and sewage from the highest point in the town to a sewage disposal system located at the western edge of the town.

While not a complete new town in Howard's sense, the development at Greenbelt constitutes a well planned community, based on the notion of the neighborhood, with an original density of only four families per acre.¹⁷

Greenhills, Ohio Site Plan

The second greenbelt project undertaken by the Resettlement Administration was Greenhills, Ohio. (See Figure 5-2.) It is located on a wooded site approximately five miles north of Cincinnati. While the project contained 6,000 acres situated between two highways connecting Cincinnati and Hamilton, Ohio, the original plan was for only 676 dwelling units which were completed in the first stage of development. Even so, the town had a potential capacity of several thousand families.¹⁸

The topography and existing roads influenced the formation of the town plan. The topography consisted of a series of rolling areas and steep slopes. As a result, general building areas were separated by ravines which the planners utilized as open spaces. The areas which were developed were on level ground with a commanding view of the surrounding countryside.

The development utilized the concept of the physical neighborhood based on the Radburn idea. Roads followed the natural contours of the land and form large irregular shaped superblocks. In addition, the residential flavor of the area was preserved by the extensive use of

¹⁷"Site Plans of Greenbelt Towns," pp. 57-58.

¹⁸Stein, Towards New Towns for America, p. 150.

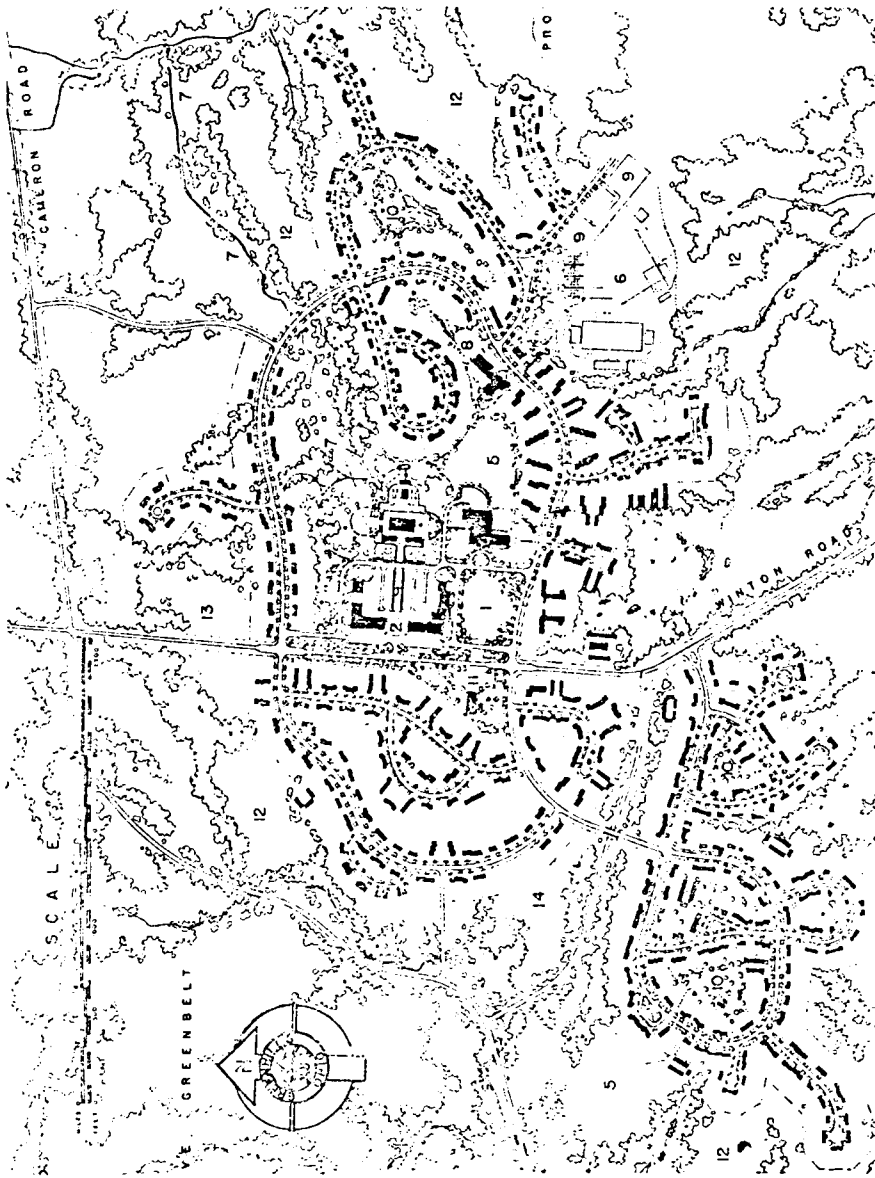


Figure 5-2. Town plan of Greenhills, Ohio. The plan shows: (1) common; (2) shopping center; (3) community school; (4) swimming pool; (5) inner park; (6) playground; (7) stream; (9) parking areas; (10) small children play areas. Source: Stein, Towards New Towns for America, (The MIT Press, 1971).

wide cul-de-sacs. Landscaping and the road system were directed toward the desire to achieve an informal open community. This atmosphere was further enhanced through the utilization of the ravines as recreational open space and a large play and picnic area located at the southern boundary of the site.¹⁹

The Greenhills town center serves as the formal center of the development. This center contains a town common, business center, swimming pool, school and playground. In addition, the center contains an auditorium-gymnasium, library, art studios and a cafeteria. The community center is within easy walking distance to all residents and is situated in the exact center of the site.

To protect the community from encroachment by other developments and to segregate the town as a unit, Greenhills utilized a greenbelt which encircled the entire town. The greenbelt was composed of allotment gardens, open recreational areas, and farmland.

Greendale, Wisconsin Site Plan

The final greenbelt project undertaken by the Resettlement Administration was the community of Greendale, Wisconsin. (See Figure 5-3.) The Resettlement Administration purchased 3,140 acres approximately eight miles from Milwaukee in 1936. While the purpose of the administration was to provide low income homes, the work resulted in what Clarence Stein described as:

. . . just that kind of neighborly community life that makes Greendale such an important demonstration of the kind of towns we need all over America.²⁰

¹⁹"Site Plans of Greenbelt Towns," pp. 57-58.

²⁰Stein, Towards New Towns for America, p. 187.

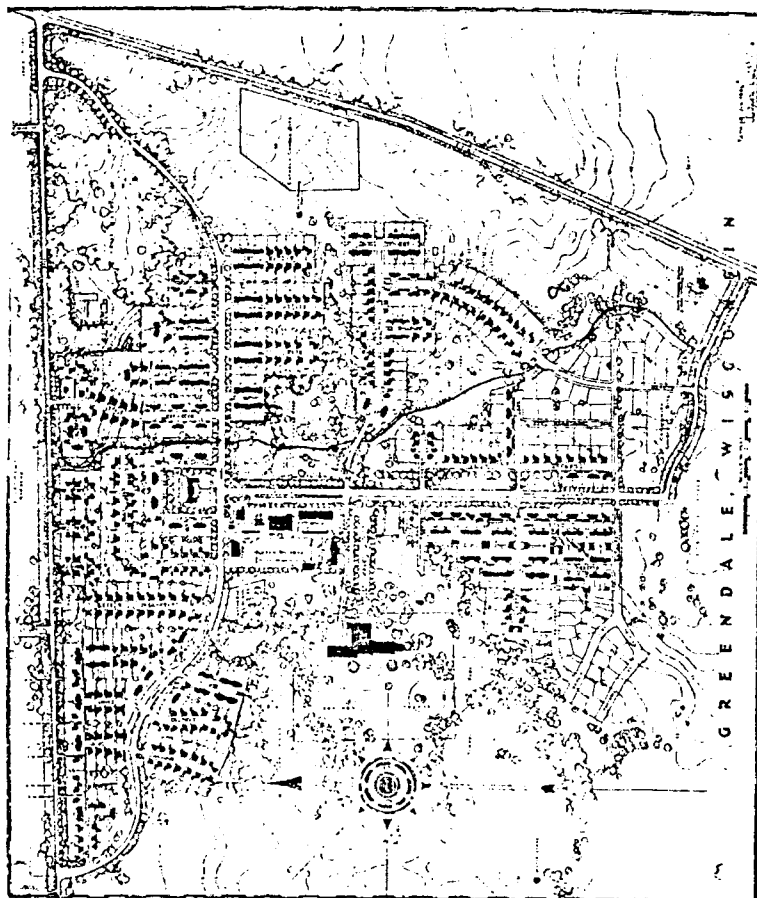


Figure 5-3. The general plan of Greenbelt, Wisconsin. Source: Stein, Towards New Towns for America, (The MIT Press, 1971).

Milwaukee County for park and recreational purposes, protected the town from encroachment from other developments and serves to define and limit the size of the town.²² While Greendale was initially built to house only 750 families, it was large enough to accommodate an ultimate capacity of 3,000 families.²³

Overview of the Greenbelt Projects

In sum, the work of the Resettlement Administration under Tugwell represented the federal government's initial attempt at new town development. While the resulting communities were not complete new towns with great diversity in housing type and population, and economically self contained, they are nonetheless communities which were designed to promote better living. Clearly, elements from both Clarence Perry and Clarence Stein served as the design foundation for the projects.

The developments were to serve as models representing ideal requirements for better living based on modern life. In addition, they were well planned, functional growth units which served to accommodate expanding metropolitan populations in a time when planners began to first toy with alternatives to unimaginative designs for urban growth.

In review, the original intent of the New Deal Resettlement Administration was two fold; to create work during the great depression and to try new planning concepts which had evolved to date. Furthermore, the Resettlement Administration based its project experiments on five propositions:

1. Acquisition of a large tract of land to avoid the complications of diverse ownership.

²¹Ibid.

²²Ibid.

²³"Site Plans for Greenbelt Towns," p. 57.

2. Creation of a community primarily for families of modest income, protected by an encircling greenbelt.
3. Dwellings and their land retained in one ownership-preferably a local public agency which would lease dwellings but not sell them.
4. Development under a master plan for the entire area.
5. Integration of the economics of the rural area and the urban community.²⁴

Furthermore, the Resettlement Administration had hoped to create complete communities, rather than merely suburbs, based on the concept of the physical neighborhood.

In 1966 the National Association of housing and Redevelopment Officials visited the greenbelt cities to examine the present status of the towns. The group found that, in general, residents had not been supportive of the new towns. As a result, the towns had stagnated with practically no growth after the federal government pulled out. The only exception was in Greenbelt, Maryland, which added approximately 1,000 units in 1941. After the government liquidated its interest the notion of design based on the neighborhood unit was abandoned, and the towns were merely suburbs of neighboring metropolitan areas.²⁵

II. THE LEVITTOWNS

Levittown I

Truely one of this country's most innovative development schemes was launched following the second world war. In 1947, William J. Levitt, a one-time college drop-out, launched a scheme which ultimately revolutionized the housing industry in this country.

²⁴Albert Mayer, "Greenbelt Towns in USA: and New Towns," Town and Country Planning, Vol. 37, (January 24, 1969), p. 36.

²⁵Mayer, "Greenbelt Towns in USA: and New Towns," p. 37.

Immediately following World War II, Levitt, his father, and brother formed Levitt and Sons Company in Manhasset, Long Island. As a result of his initiative, Bill Levitt became the "biggest builder of houses in the United States" as one writer said, "the General Motors of the housing industry."²⁶

Levitt's idea was to mass produce prefabricated low cost housing in sufficient quantity to be affordable to the young couples which so badly needed it following the war. Levitt implemented his idea by obtaining a 1400 acre site near Hicksville, Long Island, in 1947. Ultimately, the development mushroomed into 17,000 homes, housing 70,000 people. (See Figure 5-4.)

Bill Levitt's success as a developer was due to his unusual approach to housing production. Levitt broke housing production into twenty-six steps. As a result of this operation, once a foundation was completed Levitt could, through specialization and prefabrication, erect a completed home every fifteen minutes. In order to keep costs minimal, Levitt employed his own subcontractors and laborers, all working exclusively for Levitt. Furthermore, Levitt's method of housing construction required that only 20% of his work force be skilled. Finally, the whole operation was conducted by his own company. Levitt and Sons cut their own lumber, supplied their own appliances, manufactured their own nails and concrete, and erected the complete development.²⁷

Levitt boasted that his standard, mass produced, four and one half room house was "the best for the money in the United States." Houses

²⁶Emil Reynolds, "Up From the Potato Fields," Time Magazine, Vol. 56, (July 3, 1950), p. 67.

²⁷Reynolds, "Up From the Potato Fields," p. 36.

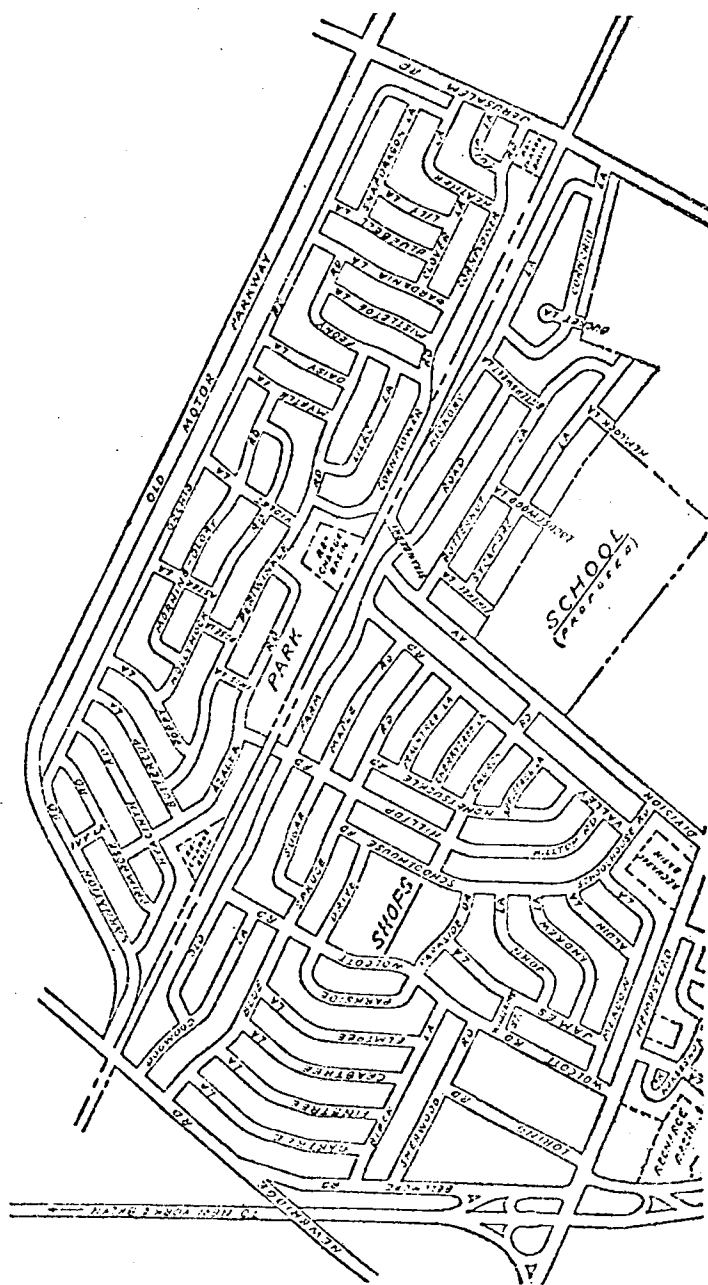


Figure 5-4. The northernmost third of the Levittown Project. This area contained approximately 2,000 houses on 60 x 100 foot lots. Source: "The Six Thousand Houses that Levitt Built," (Harper's Magazine, September, 1948).

in Levittown I were essentially alike. Each was built on a concrete slab with no basement. Walls were composed of sheetrock, while the floors were asphalt tile. Every house in the development featured a picture window, radiant floor heat, a living room with fireplace, two bedrooms and a bathroom.²⁸

Even though Levittown I was not based on the neighborhood unit concept, it nonetheless exhibited many amenities making it a desirable place to reside. The community although dense did not appear crowded. Each house was constructed as a single family unit which occupied only 12% of its six thousand square foot lot. Furthermore, Levittown I contained a swimming pool for each 1,000 houses, three shopping centers, school sites developed by the county under public contract, and countless playgrounds and sportfields. Finally, each home owner in Levittown I was protected by a deed restriction which prohibited such practices as fence erection, clotheslines, and lawn neglect.²⁹

Houses in Levittown I sold for a standard price of \$7,990. This figure not only undersold Levitt's nearest competitive by \$1,500 but also allowed him a net profit of \$1,000 per house. Needless to say, Levittown I proved to be a tremendous success for Levitt. Levitt claimed three factors responsible for his success:

1. The unprecedented demand for housing;
2. The G.I. Bill of Rights;

²⁸"The Levitts of Levittown," Readers Digest, Vol. 57, (October, 1950), pp. 105-106.

²⁹Eric Larrabee, "The Six Thousand Houses that Levitt Built," Harper's Magazine, Vol. 195, (September, 1948), pp. 79-80.

3. At the end of the war the banks were busting (sic) with money.

However, the biggest contributor to Levitt's success was Title VI of the National Housing Act. Under this act the Federal Housing Administration allowed a developer to insure up to 90% of the mortgage of a house, up to \$9,000 in value.³⁰

Levittown I was a huge success for Levitt. As a result of his work contractors everywhere began to copy his methods of prefabricated housing, resulting in the largest housing boom in United States history. However, the first Levittown development did have drawbacks. Due to the tremendous size of the development, it created a need for schools, hospitals, transportation, and sewage facilities. Furthermore, although planners at first praised its uncluttered nature and ample provision of recreational facilities, the completed development contained a maze of over 1,300 lock-alike streets. Similarly, residents complained of a lack of neighborhood identity.³¹

Nonetheless, Bill Levitt's success at Levittown I proved to revolutionize the housing industry in this country. Bill Levitt wrote:

We believe that the market for custom housing like that for custom tailoring no longer exists. People who want to buy that sort of thing will always be able to get it, but the real market is for the ordinary, mass produced suit of clothes, and you can't build \$30,000 houses by the six thousands.³²

Levittown II

Levittown I proved to be such a success that Levitt and sons began development of a second town. The site chosen in 1951 was a 5,000 acre

³⁰Larrabee, "The Six Thousand Houses that Levitt Built," p. 82.

³¹Reynolds, "Up From the Potato Fields," p. 69.

³²Reynolds, "Up From the Potato Fields," p. 87.

tract located eight miles from Trenton, New Jersey, in Bucks County, Pennsylvania. This site was near a newly constructed \$400,000,000 United States Steel plant in the Delaware River Valley.

Bill Levitt learned from mistakes made in the earlier Levittown development. The second Levittown, unlike the first, was based on a community plan designed initially to contain 17,000 homes housing 70,000 people. Levittown II was to be a "model community" based on the proposition that "people like people." As a result, the Levitts chose to utilize the neighborhood unit concept for the physical residential design. Furthermore, every use in the development was preplanned, and Bill Levitt boasted that Levittown II was "the most perfectly planned community in America."³³

The heart of Levittown II was a fifty-five acre shopping center and business district which featured off-street parking for thousands of cars. The center contained a professional building, town hall, meeting rooms, and an 800 seat auditorium. Wide parkways radiate from the town center enclosing "master blocks" which in turn form the physical basis for the community. These parkways have no houses fronting them and serve to form an efficient transportation system and at the same time enclose the blocks.³⁴

In sum, the development contains eight of these master blocks covering an area of one square mile each. The center of the blocks focused on schools, churches, recreation areas and a swimming pool.

³³Penn Kimball, "Dream Town Large Economy Size," New York Times Magazine, (December 14, 1952), p. 36.

³⁴"Levitts to Build 1,600 Home Community in Bucks County, PA," The American City, Vol. 66, (November, 1951), p. 109.

Around this center, Levitt and Sons clustered two or three neighborhoods of 300-600 families. These neighborhoods shared the single school site and adjacent facilities.

In all, Levittown II consisted of sixteen of these neighborhood units. Each was bounded by circumferential boulevards which were arranged so as not cross a single residential street in the neighborhood. In this manner, each neighborhood was protected from outside noise and dangers of automobile traffic by parks, playgrounds, and parkways. In addition, residential streets were curved for aesthetic appeal, as well as to slow down internal traffic.³⁵

Each of the sixteen neighborhoods in Levittown II was given a significantly distinguishing name. Similarly, each street name within a given neighborhood began with a letter corresponding to that of the first letter of the particular neighborhood's name. This system proved to be much more efficient than the unorganized nature of the earlier Levittown development in that residents and visitors were given a sense of identity.³⁶

Levittown II contained ten elementary schools and two high schools which were located so that no child would ever have to cross a major street in reaching them. Furthermore, every resident was within short walking distance from one of eighteen baseball diamonds, a lake, a picnic area, or one of eight swimming pools. In developing the site Levitt planted 250,000 trees. Other amenities included deed restrictions and

³⁵Kimball, "Dream Town Large Economy Size," p. 42.

³⁶Lawrence Lader, "Birth of a City," Readers Digest, Vol. 61, (December, 1952), pp. 73-76.

placement of sewer lines in backyards in order to save on further maintenance costs.³⁷

The first homes opened in 1952 and within two days Levitt and Sons had sold \$2,000,000 of homes. Furthermore, during the first year Levitt sold 3,206 homes, some of them six months in advance. House prices in the development ranged from \$10,500 to \$18,000 and architects praised them as the "best buy in the country." Unlike the previous development, Levittown II offered four different styles of houses, in seven colors. Each featured a twelve by eighteen foot living room with wall sized windows and fireplace, kitchen with stove, three bedrooms, a Bendix washer, and automatic radiant heat. In addition, each house had an attached carport and was surrounded by a landscaped seventy by one hundred foot lot.³⁸

The second Levittown also proved to be a financial success for Levitt. He had successfully created what Lewis Mumford had called "return to the human scale" namely, "a residential development small enough to be recognizable, intimate enough to be neighborly, and cohesive enough to be functional." However, Mumford had both praise and criticism for the second Levittown development. In praise of the housing Mumford wrote:

. . . a superior interior design . . . a great deal of value for the price . . . identifiable neighborhoods, interior schools locations, shade trees, swimming pools and built in community services.³⁹

³⁷Kimball, "Dream Town Large Economy Size," p. 36.

³⁸Lader, "Birth of a City," pp. 73-76.

³⁹Kimball, "Dream Town Large Economy Size," p. 42.

However, Mumford also had some criticism for the development:

Most of the open space is in the form of streets instead of gardens-sewer lines and streets cost money which could be better spent on reducing the number of houses per acre. Levittown offers a very narrow range of house type to a narrow income range . . . mechanically it is admirable done. Socially the design is backwards.⁴⁰

In any event, the second development at Levittown II represented an attempt to create a model community based on the concept of the neighborhood unit. Although there were social shortcomings, the development nonetheless represented a conscious attempt to apply sound planning principles for a rational urban growth form. The result of this attempt was both a desirable and affordable physical setting for residents as well as a financial success for its developer. In short, the neighborhood unit concept had finally proven its merit.

III. COLUMBIA, MARYLAND

Perhaps the most complete application of the neighborhood unit concept was exhibited in the physical design of Columbia, Maryland. Columbia was the expression of James Rouse, conceived in 1962 as a new town that would ultimately house a population of 125,000. Rouse was described as "one of America's leading mortgage bankers, builder of shopping centers, evangelist of urban renewal and gadfly of urban design."⁴¹ Furthermore, his company, the Community Research and Development, Inc., was ranked thirteenth among United States banking institutions in 1967.⁴²

⁴⁰Kimball, "Dream Town Large Economy Size," p. 42.

⁴¹D.C., "A New Approach to New Town Planning," Architectural Forum, Vol. 121, (August, 1964), p. 195.

⁴²"Hail Columbia," Newsweek, Vol. 69, Part 2, (June 26, 1967), p. 65.

The site chosen for Columbia was in the Washington-Baltimore corridor in the eastern section of rural Howard County. (See Figure 5-5.) In 1963 Rouse assembled over 160 separate parcels of land totaling approximately 15,200 acres.⁴³ The site constituted over nine miles of rolling hills and stream valleys. Within the site there were several land islands composed of small farms and new subdivisions which Rouse was unable to purchase. As a result, Columbia's site plan consisted of a series of physical communities distributed throughout the area.

Funding for Columbia came from two primary sources. Rouse borrowed \$15 million from the Teacher's Insurance and Annuity Association and \$25 million from the Connecticut General Life Insurance Company.⁴⁴ The latter company deferred repayment of the loan until actual development of the new town began. However, before construction began in 1965, Rouse had to convince the Howard County Planning Commission to rezone the site for a new town development. After doing so, Rouse placed his new town staff under his project vice president William E. Finley. Finley had formerly served as the Director of the National Capitol Planning Commission. The actual designer of Columbia, Mort Hoppenfield, had worked under Finley at the National Capitol Planning Commission. However, before the design process began, Rouse and Finley sought to determine the elements and requirements of a good city.

In order to do so, Rouse immediately employed fifteen expert consultants in such fields as sociology, government, recreation, economics,

⁴³D.C., "A New Approach to New Town Planning," p. 196.

⁴⁴"Hail Columbia," p. 65.

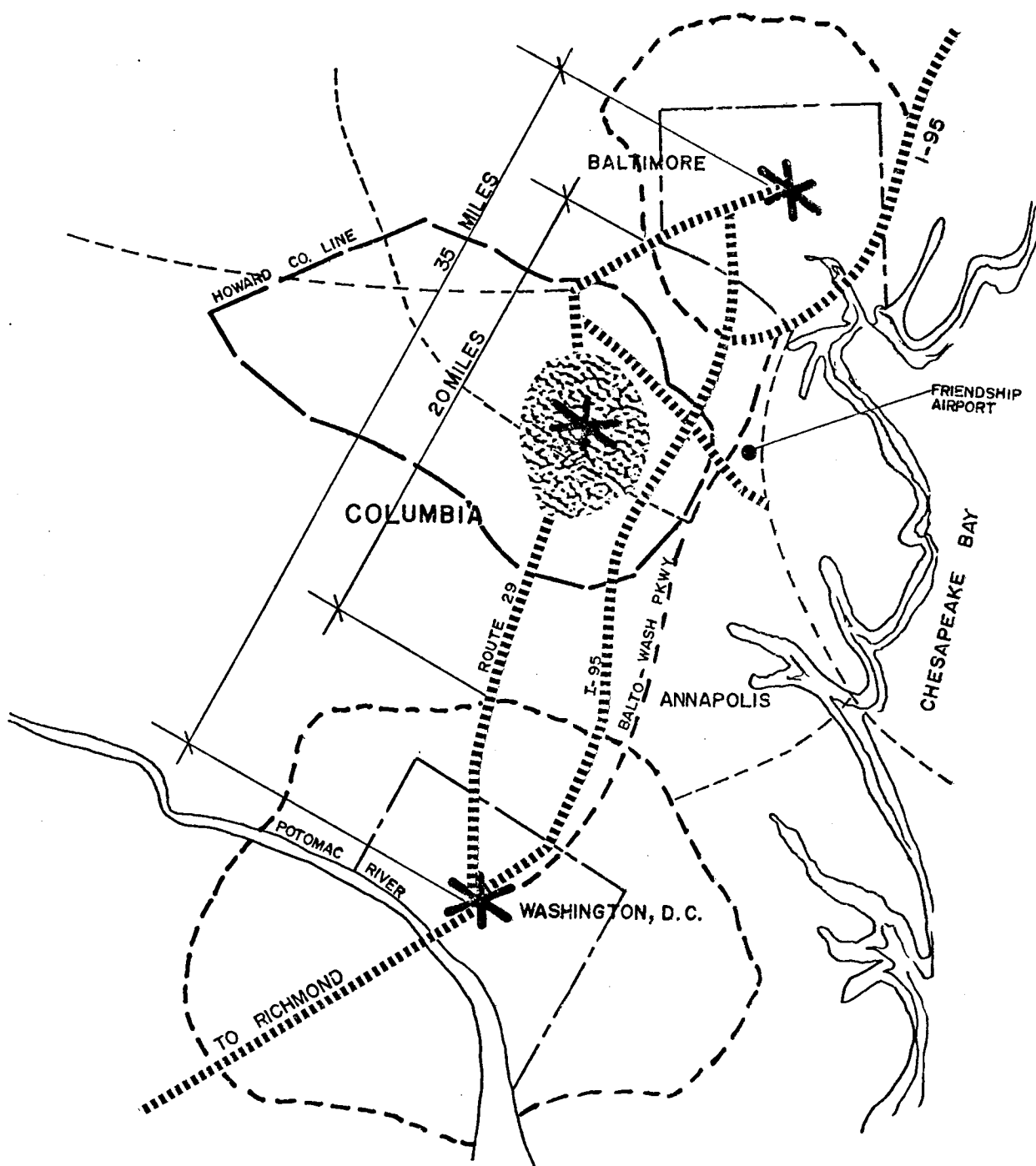


Figure 5-5. Location map of Columbia, Maryland. Source: Reproduced from Architectural Record, (February, 1965).

health, housing, transportation, and communications.⁴⁵ After a six month planning period, the group of consultants agreed upon the general goals and the physical design of the community. Topics the group examined included:

1. Resentments of housewives;
2. Advantages of bicycle riding;
3. Desire of elderly for contact or escape from youth;
4. Role of churches;
5. Advantages of small schools vs. large ones;
6. Social interaction;
7. City identity;
8. Politics;
9. Family tension; and
10. Racial integration.⁴⁶

After the initial planning period Rouse set forth four general goals for Columbia:

Columbia would provide the best environment for the growth of the city; Columbia would be a complete and balanced community, providing a broad range of housing and employment, including major institutional, recreational and cultural facilities; Columbia's plan would respect the land, providing major areas of permanent open space, lakes, parks, and scenery. Trees, streams, valleys and other natural amenities would be preserved, enhanced, and cultivated to the maximum extent possible; and by building a good environment rather than a poor one, the undertaking would be profitable for the company.⁴⁷

⁴⁵D.C., "A New Approach to New Town Planning," p. 196.

⁴⁶Patricia McBroom, "New Towns an Urban Frontier," Science News, Vol. 92, (July 15, 1967), p. 65.

⁴⁷Carlos Campbell, New Towns Another Way to Live, (Reston, Virginia: Reston Publishing Co., 1967), p. 89.

In addition, Rouse was determined "to produce as large a variety of alternatives of living as possible."

After determining the goals of the community, construction began in 1965. Rouse decided to utilize Mort Hoppenfield's tri-level community concept as a scheme for physical development. The three physical entities utilized in Columbia's design were the neighborhood, the village, and the town. (See Figure 5-6.) At the lowest level, neighborhoods were designed to accommodate 800-1,200 families focusing on a neighborhood center. The center is located in conjunction with an elementary school and contains community meeting rooms, a swimming pool, park or playground, and often a convenience store. Rouse was careful to place each of these neighborhood centers within easy walking distance of all residents.⁴⁸

While Columbia was designed to be a balanced community, neighborhoods were designed to be homogeneous in terms of resident income and shared interests. Although Rouse had originally intended to create neighborhoods with mixed economic characteristics, Herb Gans and others talked him out of it. In speaking of the segregated economic neighborhoods at Columbia, Project Vice President Finley wrote:

. . . putting people of different social classes side by side on a block creates dissension since their styles of living are dissimilar.⁴⁹

The next physical level of Columbia is the village. The village consists of three to four overlapping neighborhoods with a combined population of 10,000-15,000. The focal point of the village is the village

⁴⁸Hugh Miels, Federally Assisted New Communities, (United States: Urban Land Institute, 1973), p. 18.

⁴⁹McBroom, "New Towns an Urban Frontier," p. 65.

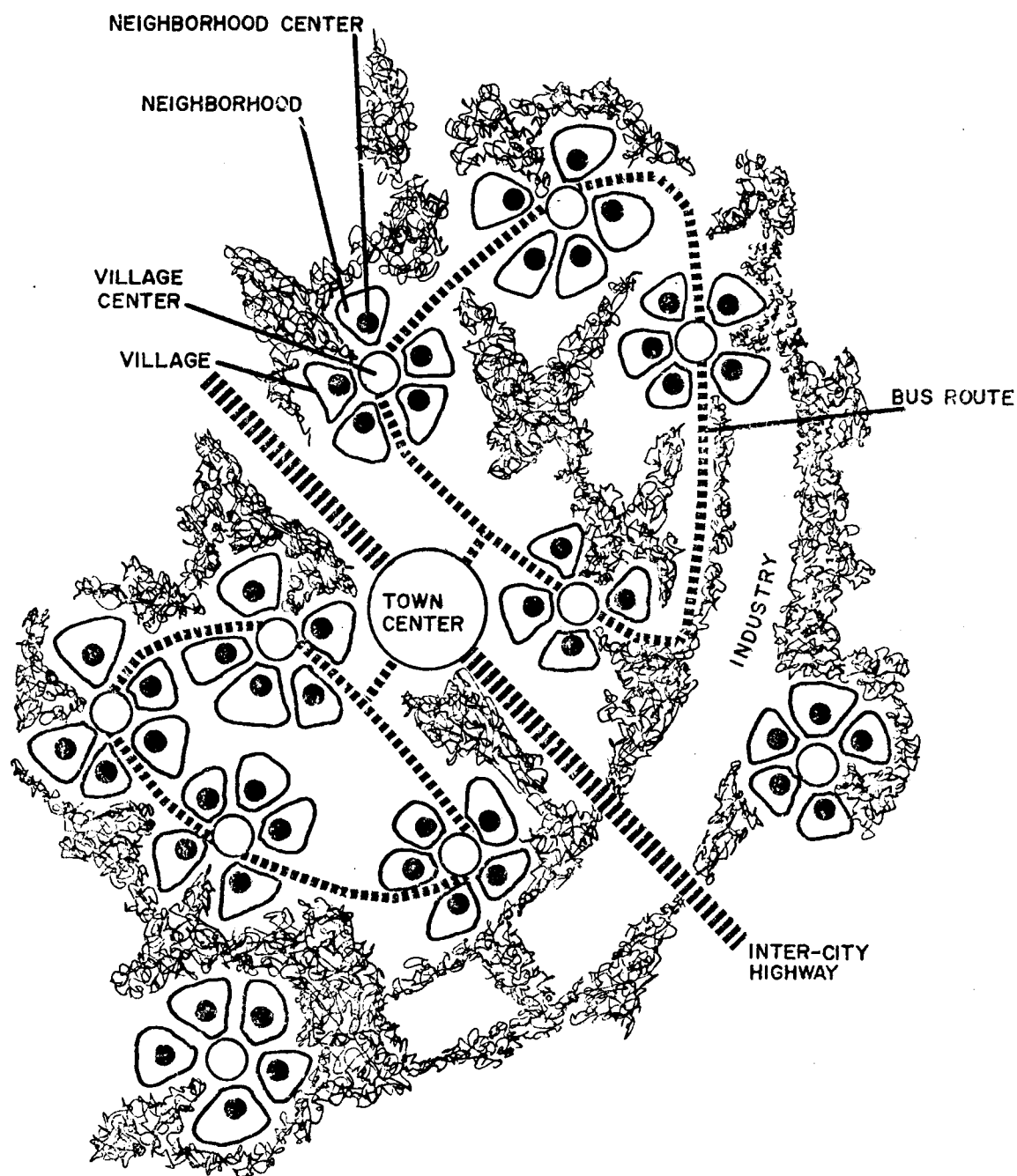


Figure 5-6. Conceptual plan of Columbia, Maryland. Source: Reproduced from Architectural Record, (February, 1965).

center and secondary school. The village center contains a shopping center and also serves to provide adolescent and elderly care, family services, and information on community affairs.

While neighborhoods were designed as homogeneous units, the village level is where Columbia enjoys full diversity and social integration. At this level all social classes enjoy community services and experience social interaction through community involvement. Rouse hoped to create through physical design, a diversified integrated village community using the neighborhood and village to "facilitate a sense of local participation and community control."⁵⁰

The third level of physical development at Columbia was the town level. By 1981, Rouse plans to have completed seven villages clustered around a town center. The center will serve to link villages together into a unified town structure. A multi-level enclosed mall began operation in 1973. The mall contains 102 retail stores, 400,000 square feet of office space, a community college, a 150 unit inn, restaurants, four service stations, a fire station, library, outdoor music pavilion, movie theater, hospital, and a recreational lake.⁵¹

In designing the transportation system for Columbia, Rouse wanted to insure that residents would be able to live with the automobile but not be dominated by it. Columbia was designed with a special right-of-way for a public mini-bus system which serves to link the seven villages and the town center in a loose figure 8. In addition, the development

⁵⁰Richard Brooks, New Towns and Communal Values, (New York: Praeger Publishing Co., 1974), p. 14.

⁵¹Mields, Federally Assisted New Communities, p. 19.

contains bicycle and pedestrian paths which interlace and connect the entire city. In this manner, Columbia has a tri-level transportation system which serves to connect the development into a complete functioning unit.⁵²

Unlike most previously constructed new towns, Columbia has been extremely successful in attracting industry. Rouse's original intent was to secure a job for each of the town's employable residents. This led to the creation of two industrial parks, the Oakland Ridge Industrial Park and the Guilford Industrial Park. There are presently several firms occupying sites in these parks including General Electric's manufacturing plant which comprises over 1,100 acres. This company immediately employed 3,000 workers and is expected to employ 12,000 by 1980.⁵³ However, only a few of these employees can afford to live in Columbia so most commute from outlying areas. Upon completion, Columbia is expected to contain over eight hundred businesses and industries which should provide approximately 60,000 jobs.⁵⁴

Housing prices in Columbia ranged from \$14,000 to \$100,000 for single family units in 1973.⁵⁵ There are many multi-family units in the development with the highest density housing being concentrated around the various community centers. Garden apartments rented from \$127.50-\$320.00 per month in 1973. Finally, the development will provide public

⁵²McBroom, "New Towns an Urban Frontier," p. 65.

⁵³Brooks, New Towns and Communal Values, p. 10.

⁵⁴Campbell, New Towns Another Way to Live, p. 91.

⁵⁵McBroom, "New Towns an Urban Frontier," p. 65.

housing units which were either completed or in the planning stage as of 1973.⁵⁶

Recreation amenities at Columbia include two golf courses, a health club, year round swimming pool, indoor and outdoor tennis courts, horse-back riding, two man made lakes, and an indoor ice rink.⁵⁷ By the end of 1973, Columbia consisted of three completed villages and a fourth was underway. At that time Columbia contained eight elementary schools, two junior high schools, and a high school. In sum, the development housed 8,000 families in detached houses, townhouses, and apartments with a total population of 30,000.

The local general purpose government for Columbia was provided by Howard County. However, in order to provide residents with services and amenities, Rouse founded the Columbia Park and Recreation Association (CA). The CA was formed December 10, 1965, to function as a "nonstock, nonprofit corporation to represent the owners of land and residents of the new community."⁵⁸ Since its establishment, the CA has served to build, operate, and maintain community facilities such as parks, meeting rooms, swimming pools, tennis courts, golf courses, and playgrounds. In addition, the organization has functioned to establish programs to enhance the quality of life for residents in Columbia.

There were two purposes of the CA:

1. To provide professional management of its properties and programs with the goal of making available the highest quality services and amenities; and

⁵⁶"Hail Columbia," p. 65.

⁵⁷Mields, Federally Assisted New Communities, p. 19.

⁵⁸Mields, Federally Assisted New Communities, p. 241.

2. To serve as a channel for the energy and resources of the community in building a new quality of life.⁵⁹

The CA is headed by a board of directors which may consist of from three to fourteen members. Board members are the only members of the corporation. While the first board consisted of seven members appointed by Rouse, future membership will be chosen by residents with one representative for each 4,000 dwelling units. Primary funding for the CA comes from an annual charge or assessment on the property in Columbia. Maximum rate of assessment is fixed at 75¢ per \$100 of assessed valuation of property, as determined by Howard County.⁶⁰

The CA's second principal source of income is from user fees. User fees are used to pay for operating costs of certain facilities and programs. While some of the facilities and amenities in the development are free to residents, such as parks and bike paths, others such as educational programs require a sliding fee based on family income.⁶¹

Columbia should be completed in the mid 1980's. At that time, it should house a projected population of between 110,000-125,000 people. Furthermore, the town should contain approximately 29,000 dwelling units and provide employment for 30,000 people.⁶² It is to be an "ideal" community as:

The town as a whole stresses an optimum range of choices, of awareness, of mobility . . .⁶³

⁵⁹Mields, Federally Assisted New Communities, p. 241.

⁶⁰Mields, Federally Assisted New Communities, p. 241.

⁶¹Mields, Federally Assisted New Communities, p. 241.

⁶²"New Town of Columbia Proposes 10 Villages to Accommodate 110,000," Architectural Record, Vol. 137, Part 1, (February, 1965), p. 14.

⁶³D.C., "A New Approach to New Town Planning," p. 198.

More important, the town will represent a tri-level physical structure whose heart is the neighborhood unit. In praising Columbia, Dr. Leonard J. Duhl, special assistant to the Secretary of HUD wrote:

Columbia is the only one of its kind . . . Its ultimate design is based on the concept of a fully mixed city.⁶⁴

IV. LITCHFIELD PARK, ARIZONA

Perhaps the most recent application of the neighborhood unit concept was demonstrated in the planning of Litchfield Park, Arizona. Litchfield Park was to be a complete new town located approximately eighteen miles west of Phoenix on planned Interstate 10. The development was undertaken by Litchfield Park Properties which is a subsidiary of the Goodyear Tire and Rubber Company. Patrick K. Cusick, former president of the American Institute of Planners, served as general manager and vice president of the development.⁶⁵

In 1967, after four years of planning, Litchfield Park officials and Victor Gruen Associates developed a community design concept based on eight major guidelines:

1. Elimination of the geometric monotony of the county's grid patterned road system;
2. Establishment of a circulation system that will serve the ultimate needs of the community with maximum efficiency and safety;
3. Programming of urban growth from neighborhood to village to community to complete town;
4. Allocation of appropriate sites for educational, recreational, commercial, and civic facilities;

⁶⁴McBroom, "New Towns an Urban Frontier," p. 65.

⁶⁵"A New Town Takes Form," The American City, Vol. 82, (October, 1967), p. 109.

5. Providing suitable sites for industrial development to create an economic balance for the city;
6. Minimization of the extent and cost of automobile travel through alternate and attractive transportation methods;
7. Establishment of a design and scale appropriate to the desert climate and flat terrain of the site; and
8. Encouraging a variety of residential environments as well as recreational and visual experiences.⁶⁶

After the initial planning period, a planning program was established which included:

. . . transformation of the area into a total community, substantially self supporting, balancing a central city, industrial and commercial regions, and residential variations. Interwoven in these would be many areas of landscaping, equestrian trails, man-made lakes, golf courses, and other recreational areas.⁶⁷

Litchfield Properties chose to utilize a tri-level concept of community organization remarkably similar to that of Columbia, Maryland. (See Figures 5-7, 5-8, and 5-9.) In this system, the neighborhood unit is the lowest organizational level in the town conceptional plan. Neighborhoods in Litchfield Park were designed to consist of from 550-800 homes housing from 1,500-2,500 people. As in Perry's original proposal, the focal point of each neighborhood was a landscaped recreational area in conjunction with a neighborhood school. Individual neighborhoods were to be linked by landscaped areas and pathways which also served to insure residential neighborhood privacy.⁶⁸

⁶⁶"A New Town Takes Form," p. 109.

⁶⁷Victor Gruen and Associates, "From Farmland to City," a pamphlet prepared by Victor Gruen and Associates, (1967), p. 3.

⁶⁸A.E. Patterson, "Litchfield Park," Park and Recreation Magazine, Vol. 2, (June, 1967), p. 22.

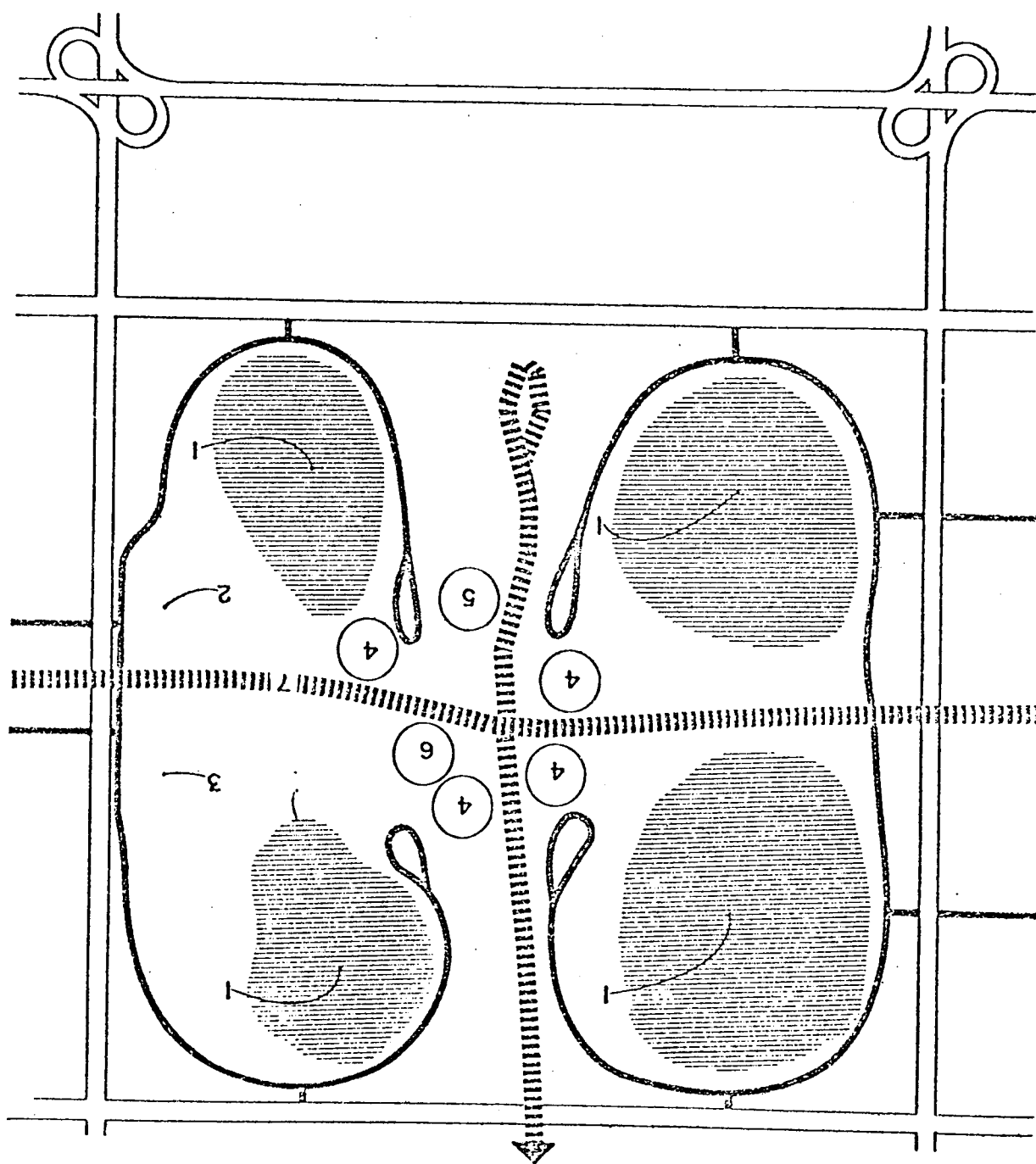
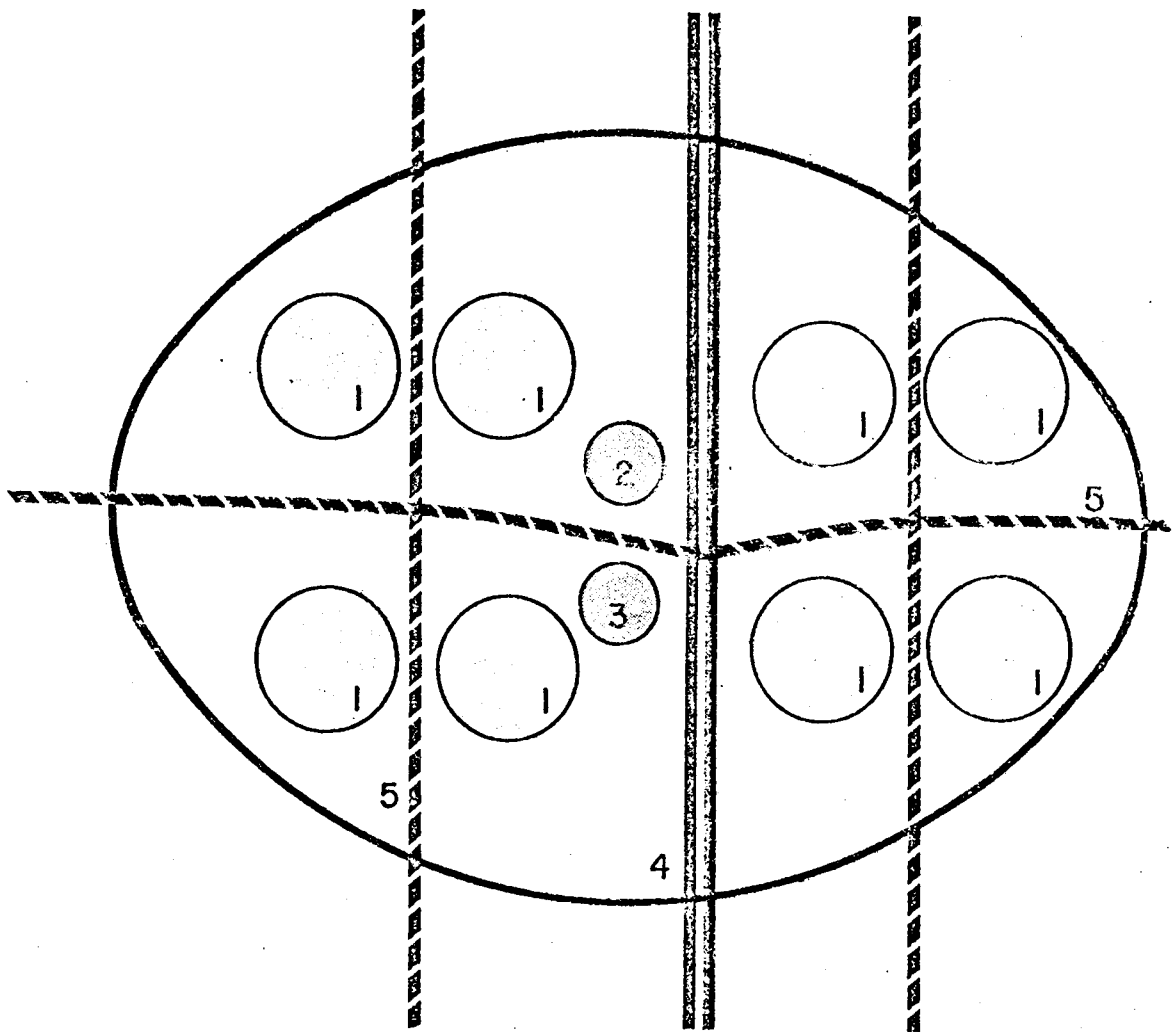


Figure 5-7. Reproduced conceptual diagram of Litchfield Park, Arizona, showing each village composed of a cluster of neighborhoods. Note each village contains four neighborhoods accommodating from 7,500 to 10,000 people. The neighborhoods are clustered around social, cultural, and leisure activities. Key: 1) neighborhood, 2) community commercial, 3) high school, 4) elementary school, 5) village commercial, 6) recreation, and 7) pathways. Source: "From Farmland to City," (Victor, Gruen and Associates, 1967).



- 1-NEIGHBORHOOD
- 2-HIGH SCHOOL
- 3-COMMUNITY COMMERCIAL
- 4-ARTERIAL
- 5-PATHWAY

Figure 5-8. Reproduced conceptual diagram of communities in Litchfield Park, Arizona. Each community is composed of two neighborhoods joined by a central complex housing cultural, recreational, shopping, and educational activities. Source: "From Farmland to City," (Victor, Gruen and Associates, 1967).

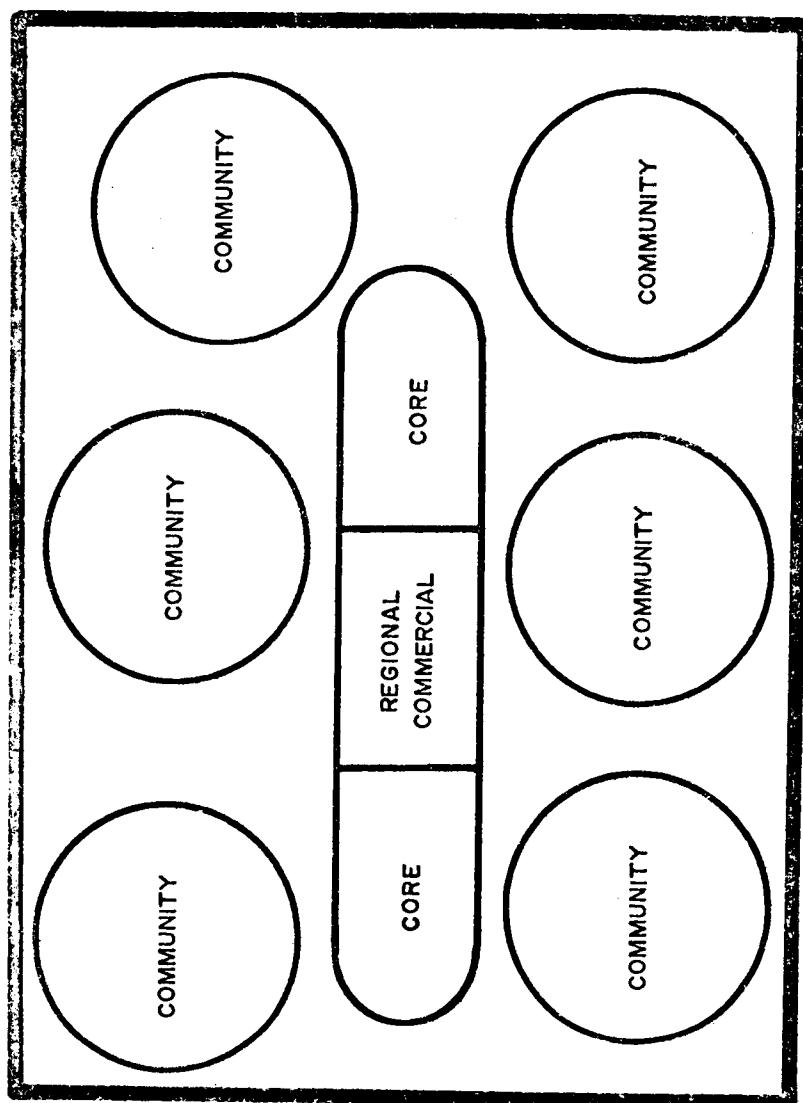


Figure 5-9. Reproduced conceptual diagram of the city of Litchfield Park. The city is composed of six separate communities tied together by a regional core city serving the entire town. Source: "From Farmland to City," (Victor, Gruen and Associates, 1967).

The next organizational level in the development hierarchy was the village. The village consisted of from two to four neighborhoods accommodating 7,500-10,000 people and focused on a village center at a point where the neighborhoods intersected. The center featured a clustering of cultural, social, educational, and recreational activities. By clustering elementary schools in the village center, not only could they share libraries and recreational facilities but it also would have allowed "optimum flexibility for future changes in school organization, programming, and pupil loads."⁶⁹

The highest organizational level at Litchfield Park was the community. The community consisted physically of two villages which were bounded by, but not entered by, major arterials. Each of these communities were to contain between 15,000 and 20,000 residents focusing on a community activity center. The community activity center would house a high school and a shopping center tied by a common plaza. Each community would also have an individual identity which would be accomplished by "location, configuration, design, specific recreation facilities and landscaping treatment."⁷⁰

Upon completion, Litchfield Park would have consisted of six of these communities encircling the core town center. The town center would provide goods and services which were too specialized for the smaller village and neighborhood centers. This winding, elongated, four mile long core would serve and house the community college, museums, hospitals,

⁶⁹Victor Gruen and Associates, "Litchfield Park, A New City Takes Form," a pamphlet prepared by Victor Gruen and Associates, (1967), p. 7.

⁷⁰Patterson, "Litchfield Park," p. 22.

hotels, offices, shops, restaurants, recreation and convention facilities, and special landscaping treatment.⁷¹

The entire development was to be efficiently linked by a system of primary roads consisting of gently curving boulevards which would serve to connect the various communities with each other and to the town core. Local streets were designed to carry neighborhood traffic and were placed so as to intersect the arterials at one-third to one-half mile intervals. Finally, over forty miles of bicycle paths and footpaths utilizing underpasses and overpasses were to provide safe pedestrian movement throughout the development. In total, the transportation system was to be designed for maximum efficiency and safety for the area's residents.⁷²

The development at Litchfield Park promised to provide a diverse variety in terms of housing types. The single family detached homes varied in terms of lot size, street type, and in relation to the character of the individual village. Patio homes would have been offered on smaller lots enclosed by a wall for maximum residential privacy. Furthermore, the development offered townhouse clusters which were attached. These townhouses featured private patios, common gardens, recreational facilities and guest parking. Finally, apartments were to serve the needs of small families, young adults, and the elderly. In sum, the completed town would have offered a wide range of residential housing types for maximum variety and choice for prospective residents.⁷³

⁷¹Victor Gruen and Associates, "From Farmland to City," p. 5.

⁷²Victor Gruen and Associates, "From Farmland to City," p. 5.

⁷³"A New Town Takes Form," p. 5.

The plan for Litchfield Park allowed for substantial industrial expansion in the future. Land along the planned Papago Freeway, connecting Arizona and California, was designated to accommodate light manufacturing, highway commercial enterprises, and industrial distribution centers. Furthermore, the plan specified an industrial park to be located south of the town served by a spur of the Southern Pacific Railroad. Existing industry included the Arizona Division of the Goodyear Aerospace Company which employed 1,500 people and the Unidynamics Division of the Universal Match Company.⁷⁴

Ultimately, Litchfield Park would have consisted of twelve villages, (six communities) housing from 75,000 to 100,000 people. The plan offered ample provision of open space and a wide range of recreational facilities. In 1967, the town contained a community center, an eighteen hole golf course, later expanded to thirty-six, a professional building, library, and auto service center. Furthermore, the first village was completed with lots selling from \$4,000 to \$12,650. Prices for the first houses ranged from \$16,000 to \$60,000. Future housing was to have been developed by private industry and would have offered housing variety to accommodate all income levels.⁷⁵

In praising the development, R.E. Patterson wrote that Litchfield Park would be:

. . . a community where all those future bike fans can peddle around without constant fear of some zig-zagging automobile tearing up the road--a place where people can walk, sit,

⁷⁴Victor Gruen and Associates, "From Farmland to City," p. 10.

⁷⁵"A New Town Takes Form," p. 109.

and converse without the boom of traffic . . . a healthful environment where air is breathable and country side refuses to be blemished.⁷⁶

If completed according to plan, Litchfield Park would have been a town based on efficient community organization. Although the neighborhood unit was one level of community organization, close examination reveals that the town would have actually been a series of connected neighborhoods forming the community.

Litchfield Park is remarkably similar to Columbia, Maryland in terms of conceptual design. Similarly, the tri-level community organization seems to represent the current trend in new town development. For these reasons, Columbia and Litchfield Park were chosen as examples of modern large scale developments based on the neighborhood unit concept. Planners should recognize the elements which constitute such an organizational scheme of the neighborhood, village, and community. Once recognized and understood, planners will be better prepared to utilize such an organization for new efficient growth and development arrangements. Only then will Clarence Perry's noteworthy concept be fully understood and appreciated.

⁷⁶Patterson, "Litchfield Park," p. 22.

CHAPTER VI

BEYOND THE NEIGHBORHOOD UNIT

I. THE NEIGHBORHOOD UNIT RECONSIDERED

By introducing the neighborhood unit concept, Clarence Perry had hoped to offer maximum environmental satisfaction to residents in urban areas. To this end, Perry included four primary sets of elements that he felt universally desirable for child-bearing families in residential sections. These elements were an elementary school, play and small park spaces, local shopping facilities, and area residential character. Furthermore, Perry had hoped the concept would serve as a guide or "scheme of arrangement" to be used by planners and landscape architects for efficient land development. Embodied in his concept was the notion that efficient service functions are dependent upon efficient residential layout and arrangement. This notion would appear to be just as valid today.

Since its inception the notion of the neighborhood unit has increasingly become a "primary concern for planners at the local level when formulating a master or comprehensive plan."¹ In a positive sense the neighborhood unit concept has been utilized in several successful developments. In these instances it has proven successful from the standpoint of the developer, the urban resident, and in terms of effective governmental service provision. However, widespread utilization has been relatively limited in terms of a growth scheme for previously undeveloped

¹The Community Builders Handbook, (Washington, D.C.: The Urban Land Institute, 1968), p. 90.

urban fringe areas. Moreoften it has served as the "basic residential unit" in the development of new towns or satellite suburbs.²

While most evolutionary concepts require time to gain widespread understanding and acceptance, it would seem the opposite has been the case with the neighborhood unit. Rather, it would appear the the neighborhood unit concept has become more controversial and misunderstood as time progresses. However, the soundness of the concept in terms of its usefulness and applicability can be seen by close examination of the large scale developments which have utilized it as a basis for design.

Perhaps much of this misunderstanding of the concept by planners is due in part to a lack of knowledge of the events and times preceeding its formation. This is unfortunate as few concepts have embodied sounder planning principles or drawn from broader schools of thought than the neighborhood unit concept. In developing the concept, Perry drew from the knowledge of leading authorities of his day in the fields of education, sociology, planning, and landscape design. Even so, since its inception the neighborhood unit has been both praised and criticized as a rational growth alternative.

In a positive sense, it had been praised as an alternative to form less urban sprawl and wasteful land development. Furthermore, it allows for the common sharing of amenities, provides safety from the dangers of the automobile, and combats the feeling of isolation by serving to physically promote the opportunity for "face to face" association among residents.

²Carlos Campbell, New Towns Another Way to Live, (Reston, Virginia: Reston Publishing Company, 1973), p. 21.

Negatively, sociologists have condemned the neighborhood unit as being too large to promote actual neighboring. However, it would appear that this criticism arose due to conflicting definitions of neighborhood by planners and sociologists. Perhaps this criticism might have been eliminated if Perry had not borrowed the term neighborhood from the school of sociology and instead coined a term which would have more appropriately described such a large scale development. Therefore, it might be beneficial to replace the term neighborhood unit in future developments with one less controversial and more universally understandable.

It has also been argued that the neighborhood unit formula is too rigid to be applicable to urban areas and that it is impractical to develop an entire urban area in such a uniform way. However, Perry stressed that the concept should not be rigid and inflexible but shaped to enhance any given area's physical characteristics. Furthermore, he warned that his concept was not to be taken literally but that the elements within it were those which should be considered when undertaking such a large-scale comprehensive development. Thus it seems that the rigidity of the concept would be eliminated through imagination and careful planning, at the same time insuring the provision of minimum desirable elements which serve to establish such a residential unit.

Finally, it has been argued that the neighborhood unit concept has been utilized as an instrument to promote social and economic segregation.³ While this may have occurred in actual practice, in its pure form the concept inherently promotes no such thing. Perry did not limit the

³Reginald R. Issacs, "The Neighborhood Theory-An Analysis of Its Adequacy," The Journal of the American Institute of Planners, Vol. XIX, (Winter, 1948), pp. 15-23.

concept to any specific group, housing type, or housing price range. At the same time he did recognize that:

In every way it serves to promote the extension of the benefits rising from the enjoyment of common facilities, since it brings together people of similar standards, and similar capacities to realize them.⁴

Therefore, it would appear that Perry had hoped that his concept would be utilized to benefit all members of a given area or unit to enjoy certain amenities which they would otherwise be unable to provide individually. Furthermore, it appears to the author that in general new developments, be they desperate subdivisions or a unit approach, quite naturally require a certain bit of similarity in economic terms for marketability purposes and to stabilize real estate values.⁵ As a result, these developments quite naturally tend to draw special population in terms of economic status and residential affordability.

Despite the criticisms waged against the neighborhood unit concept, when utilized it has provided character, convenience, and safety for residents. Furthermore, it would appear that the neighborhood level will continue to be an important development level in the future. While recent planning thought, especially in new town developments, has concentrated on the multi-level community with the neighborhood being but one level in the developmental hierarchy, this has further confused practitioners as to the practical benefits of the concept. As on writer said:

Unfortunately, there are no valid accepted limits that tell us precisely at what point a neighborhood

⁴Clarence Perry, "Planning a Neighborhood Unit," American City Magazine, (September, 1929), p. 127.

⁵W. Paul O'Mara, et al., Residential Development Handbook, (Washington, D.C.: The Urban Land Institute, 1978), p. 115.

becomes a village, a village a town, a town a city,
and a city a metropolis.⁶

It would appear that this is a valid concern. However, the concern does not warrant abandonment of the neighborhood unit concept as a rational urban growth scheme. Rather it would appear that planners, architects, and developers should re-evaluate the efficiency, rationality, and saleability of such an arrangement. Even by eliminating the neighborhood elementary school as the nucleus of the neighborhood because of mandatory busing, every other element of the concept would appear as valid today as it was in 1929. As our writer wrote:

For planning purposes, traditionally the extent of the neighborhood is determined by the service area of an elementary school, adjacent open space, and convenience shopping, although in the future other commercial elements may be more appropriate. With school enrollments dropping in some areas and with children being bused from distant locations, it is no longer valid to consider the elementary school to be the extent of a neighborhood per se.⁷

Furthermore, until a more rational growth form is introduced it would appear that the neighborhood unit concept could serve to effectively accommodate expanding urban populations and benefit urban areas economically, functionally, and aesthetically.

If they are soundly planned and properly financed the new neighborhoods represent reasonable costs to the home builder, the home purchaser, the renter, the taxpayer, and the local government which services the new area.⁸

II. TOWARDS THE FUTURE: "THE GROWTH UNIT"

While the neighborhood unit has been cussed and discussed as a

⁶Campbell, New Towns Another Way to Live, p. 17.

⁷O'Mara, Residential Development Handbook, p. 115.

⁸O'Mara, Residential Development Handbook, p. 116.

desirable growth alternative, wide scale application has not occurred to date. At the same time, sprawl and poor or unimaginative development practices have caused urban practitioners to again search for alternative proposals aimed at rational growth and efficiency. As a result, the future may hold new hope for the revival of at least a modified version of the neighborhood unit concept.

In the fall of 1972, the National Policy Task Force of the American Institute of Architects held a Constraints Conference. After three days, the group recommended that national policy should be directed towards planning and development of American communities at the neighborhood scale in a form known as the "growth unit."⁹ The idea behind the growth unit is that American growth and renewal should be planned as human communities offering a full range of physical facilities and human services to insure an urban life of equality. While the growth unit has no fixed dimensions, size of these units would range from 500 to 3,000 housing units.¹⁰ Larger communities would be built as multiples of these growth units, not unlike the recommendations of Perry and Stein.

Assuming that growth trends would continue, the conference recommended that growth unit priority should be given to the nation's sixty-five metropolitan areas which contain over 500,000 population. This would require that in order to implement such a scheme public agencies in these areas should acquire and prepare one million acres for growth unit development. However, this would not serve to exclude

⁹Richard C. Leone, et al., "Report of the Constraints Conference," (A pamphlet prepared by the American Institute of Architects National Policy Task Force, January 10, 1973), p. 2.

¹⁰Leone, "Report of the Constraints Conference," p. 2.

smaller urban areas:

By concentrating on the neighborhood, national policy can relate to growth and regrowth wherever it may occur--in rural areas, in smaller towns and outlying growth centers, in metropolitan areas, and their central cities, in free standing communities.¹¹

Thus it would appear that the same logic which inspired Perry to formulate the neighborhood unit concept is as valid today as it was in 1929. While it is noteworthy that the American Institute of Architects would be the first national group to recommend such a modified version of the neighborhood unit, perhaps it is fortunate in that it will inspire planners to at least reconsider the possibilities of such an arrangement. Only then will the opportunities of this growth alternative be fully realized in expanding urban areas.

III. THE PLANNERS ROLE

As it has been demonstrated, utilization of the neighborhood unit concept has been primarily limited to large scale, single ownership developments. At the same time, widespread concept application has not been undertaken by communities with development occurring under multiple ownership. This is unfortunate as it would appear that with foresight and rational planning, planners could help promote such an arrangement.

It would appear that an active planning program should strive to encourage, if not necessitate, efficient land development. This is especially true given the economics of suburban land development. Therefore, it would appear that planners could effectively utilize the neighborhood unit concept in the land development process to facilitate efficient land development.

¹¹ Leone, "Report of the Constraints Conference," pp. 2-3.

While previous attempts to utilize the concept have proven successful in large scale developments under single ownership, the author concludes that the same success could be realized at the local level through careful planning and coordination of disparate developments. However, in order to implement such an arrangement planners would have to direct land use development toward this end.

It is not to be assumed that merely educating developers to the benefits of neighborhood unit development will result in adherence to the scheme. While a good case might be made for this approach, the author feels that planners could better spend their time through the advocacy of stricter public control of development. This could be accomplished in several ways through conventional means.

Generally speaking, we can conclude that the most readily available means to promote neighborhood unit development would be through the land use plan. This could be accomplished by designating undeveloped areas to be developed as neighborhood units. Similarly, sites for commercial areas to serve the unit should be designated at the same time. However, land use plans, regardless of magnitude and detail, cannot in themselves accomplish neighborhood unit development without supportive public policy and infrastructure. Planners should strive to influence policy decisions with this in mind.

There are several areas of critical concern which planners would be forced to deal with when attempting to insure neighborhood unit development. For example, the central element to the neighborhood unit concept was the elementary school. In Perry's proposal, neighborhood size was based on that population required to support an elementary school and the school in turn served as the focus of community life. While bussing has

served to disrupt the concept of the neighborhood school, it is apparent that additional residential development places increased demands on the school's ability to accommodate urban populations, thereby necessitating new school construction. For this reason, the author feels that if new schools are strategically placed within new residential developments, they can still serve as the focal point of the neighborhood. Therefore, when developing a land use plan based on the neighborhood unit concept, planners should work with school officials to identify future school sites. Once identified, they can be easily coordinated with the land use plan in locating neighborhood units.

Another key element central to the concept is the notion of a specialized street system. This can be provided by coordinating residential developments with the community's major street plan. Neighborhood units should be located to insure that they are bounded by major arterials, thereby discouraging external traffic from entering the unit. Similarly, internal streets should be arranged to allow easy access to and easy movement within the unit. The author feels that this could be easily accomplished through a strict street dedication process insuring that before streets are accepted they conform to the major street plan. While it is recognized that it is difficult to predict where future major roads will be situated, it is the planner's role to coordinate street location and residential land use to insure mutual compatibility.

Another way to encourage unit development would be through limited utility extension policies. It is recognized that a major cause of sprawl and leapfrog development is a liberal utility extension policy. Therefore, it seems logical that to discourage this type of development and to promote unit development, public policy should limit utility extension until inner-

lying regions are developed. This could be accomplished through a series of neighborhood unit developments. This in turn would serve to promote efficient coordination of land development while insuring sufficient infrastructure provision.

The final way public policy could promote neighborhood unit development would be through forced dedication of amenities. When developers convert raw land to building sites, strict land use controls should be utilized to force the developer to donate land for school sites, parks, and open space based on the demand that the development creates. In this manner the new residents are provided the "normal requirements of family life," without additional expense to the city, a key element of the neighborhood unit.

In conclusion, it seems that the neighborhood unit concept is a feasible alternative to inefficient land development. Furthermore, it can be a desirable, economical, and profitable method of community development from the standpoint of the resident, city, and developer. It should be the role of the planner to promote and guide such an arrangement. Only then will the opportunities of this growth alternative be fully realized in developing urban areas.

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