

1992

THE IMPACT OF COMMUNITY GARDENS ON NEIGHBORHOODS AND THEIR RESIDENTS

Beverly Ann Bowen
University of Rhode Island

Follow this and additional works at: <https://digitalcommons.uri.edu/theses>

Recommended Citation

Bowen, Beverly Ann, "THE IMPACT OF COMMUNITY GARDENS ON NEIGHBORHOODS AND THEIR RESIDENTS" (1992). *Open Access Master's Theses*. Paper 508.
<https://digitalcommons.uri.edu/theses/508>

This Thesis is brought to you for free and open access by DigitalCommons@URI. It has been accepted for inclusion in Open Access Master's Theses by an authorized administrator of DigitalCommons@URI. For more information, please contact digitalcommons@etal.uri.edu.

THE IMPACT OF COMMUNITY GARDENS
ON NEIGHBORHOODS AND THEIR RESIDENTS

BY
BEVERLY ANN BOWEN

A RESEARCH PROJECT SUBMITTED IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF
COMMUNITY PLANNING

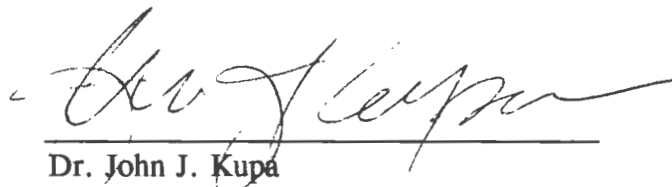
UNIVERSITY OF RHODE ISLAND

1992

IMPACT OF COMMUNITY GARDENS ON NEIGHBORHOODS

MASTER OF COMMUNITY PLANNING
RESEARCH PROJECT
OF
BEVERLY ANN BOWEN

Approved:
Major Professor



Dr. John J. Kupa

Acknowledged:
Director

Dr. Marcia Marker Feld

ABSTRACT

The inner-city areas of this country are confronting a number of issues which require innovative problem-solving techniques. One approach which has been effective in involving people in the renovation of their neighborhoods is the development of community garden programs. Although much anecdotal information exists regarding the benefits such programs provide, there could be found no quantitative data measuring the impacts to a neighborhood and its residents. This study is an attempt to discover if such data can be found.

The Southside Community Land Trust, located in Providence, Rhode Island since 1981, has established eleven gardens in low-income sections of the city. In order to determine the impacts such a program might have on the surrounding neighborhood four streets, each the site of a Land Trust garden, were evaluated using several indicators of change. These included construction and demolition permits, crime rates and the installation of street trees.

Results of this study showed no direct, measurable impacts to the individual neighborhoods. This may be due to the relatively short time frame the study encompassed. Data was not available for a sufficient length of time to detect changing conditions and emerging trends. It is possible that quantitative results could still be shown utilizing a longer time span and more data.

ACKNOWLEDGEMENTS

I wish to thank my thesis advisor, Dr. John Kupa, for his guidance in this project. He provided the insight to my understanding that neighborhoods are valuable assets which need to be preserved.

I would also like to thank Dr. Howard Foster and Dr. Richard Shaw for providing their expertise in the review of this study. Dr. Shaw has furthered my interest in horticulture by his enthusiasm and knowledge of the subject.

Finally, I am grateful to my family and friends for their continued support and encouragement throughout my educational career.

TABLE OF CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENTS	iii
INTRODUCTION	1
CHAPTER	
1. THE IMPORTANCE OF NEIGHBORHOODS	3
Definition of a Neighborhood	3
Origins of the Neighborhood Concept	4
The Benefits Provided by Neighborhoods	6
Attachment	7
Social Relationships	8
Security	10
2. THE ORIGINS OF COMMUNITY GARDENS	13
3. DEVELOPMENT OF A COMMUNITY GARDEN PROGRAM	18
4. COMMUNITY GARDENING PROGRAMS THAT HAVE MADE A DIFFERENCE	32
Philadelphia Green	33
New York City	35
Operation GreenThumb	36
Council on the Environment of NYC	37
Green Guerillas	38
NYC Housing Authority Tenant Gardening Program	39
5. SOUTHSIDE COMMUNITY LAND TRUST	42
Indicators of Change	46
Description of Gardens Surveyed	46

Construction and Demolition Permits	49
Crime Rates	52
Providence Street Tree Program	57
Providence Special Vacant Lot Program	62
Summary	63
CONCLUSION	64
APPENDICES	65
BIBLIOGRAPHY	70

INTRODUCTION

In the 1920's, Clarence Perry introduced to this country a new method in the planning of residential areas. His neighborhood model provided residential, commercial and educational facilities to a resident population of 5000 to 10,000 people. The model sought to create small communities which elicited a sense of pride and ownership in residents and where supportive relationships could develop between neighbors. The idea took hold and today most residential areas are arranged, either formally or informally, into neighborhoods.

The last thirty years, however, have seen a deterioration in the urbanized areas of this country. The Central Business Districts of many cities no longer enjoy the economic vitality and prosperity they once did. Infrastructure systems and buildings are crumbling. Crime and violence has increased to the point where many people no longer feel safe in their own neighborhoods. Although the physical frameworks of neighborhoods may still exist, they often no longer stimulate the sense of community among residents they once did.

In an attempt to reverse this trend, many inner-city neighborhoods involve residents directly in local rehabilitation efforts through the establishment of community gardens. City-owned land and vacant lots are divided into plots and, for a nominal fee, rented to participants for the

cultivation of produce and flower gardens. Along with the positive results obtained through the nurturing of plants, the gardens stimulate the development of social relationships between neighbors who are often of different ethnic or cultural groups. Suspicion and fear of others is reduced as people get to know one another. The gardens have also acted as catalysts in the development of other renovation projects as levels of neighborhood pride increase.

The majority of literature reviewed for this study described the effectiveness of community garden programs in an anecdotal form. No statistical data was available. This study is an attempt to determine what changes take place in a neighborhood following the installation of a garden using quantitative data. The Southside Community Land Trust, a non-profit agency located in Providence, Rhode Island whose mission is the encouragement of greening projects in the city, was chosen as a test case. In the last ten years, the agency has established eleven gardens in lower-income neighborhoods of Providence. Four garden sites were analyzed using several indicators of change. Also included is a discussion of the importance of neighborhoods, the historical roots of community gardening, the steps involved in the development of a gardening program and several examples of programs which are benefitting the communities in which they are located.

CHAPTER 1

THE IMPORTANCE OF NEIGHBORHOODS

Definition of a Neighborhood

Many of the cities and towns of this country are divided, either formally or informally, into smaller units called neighborhoods. They may be socially or spatially defined. A general definition favored by many professionals is that of Albert Hunter (1979: 5) who described a neighborhood as "a social/spatial unit of social organization...larger than a household and smaller than a city." They provide a strong sense of familiarity and ownership to residents within their boundaries (Hester 1975: 20). Neighborhoods also help to connect people to a particular place and with each other through frequent personal contacts in local shops, churches, schools and organizations (Rivlin 1987: 3).

Physical characteristics of an area are used in a spatial definition. Burgess and Park (Hester 1975: 7) favored this approach and used an area's land use and density, street patterns, natural boundaries such as walls, highways, and rivers, type and condition of housing units and amount of open space in their description. This method makes it possible to map out the neighborhoods of a city and locate them easily.

The social definition of a neighborhood is not as concretely constructed. Different variables have been used in the delineation of social borders including race and

ethnicity, income levels, housing stock, social class and family typology. Edward Kropat (1985: 141) defines these as "symbolic and cultural meanings." He uses examples such as Chinatown in San Francisco, Harlem in New York and Boston's Italian North End as examples. However, in most neighborhoods today there is likely to be found a combination of these demographic factors.

In general, a neighborhood is defined as an area where a resident feels comfortable and familiar with his surroundings and with the other people who live there. It offers an identity and sense of place to residents which extends beyond their own property.

Origins of the Neighborhood Concept

The existence of neighborhoods in populated areas has been traced back to ancient civilizations. China, Egypt, and Greece all utilized the concept in the spatial organization of their cities. Later, the Romans divided their territories into vicis, or vicinities, for administrative purposes (Banderjee and Baer 1984: 17-18).

In the early settlement of this country, immigrants often grouped together according to common languages, religions and ethnic backgrounds (Beyer 1965: 313-314). As some groups became more affluent, they moved away from the urban center and established exclusive neighborhoods for people of similar means (Beyer 1965: 314).

A modern-day proponent of the neighborhood concept was Clarence Perry who, in the 1920's, conducted studies for the New York Regional Plan Association. His work led to the development of six principles which he believed should be used in the planning of communities, "...in which the fundamental needs of family life will be met more completely..." (Beyer 1965: 315). These principles were:

1. Size - based on the population size necessary to support one elementary school
2. Boundaries - arterial streets on all four sides which would make it unnecessary for traffic to pass through
3. Open spaces - small parks and recreation spaces to meet the needs of the residents
4. Institution sites - schools and other institutions grouped around a central point
5. Local shops - one or more shopping districts placed in the circumference of the neighborhood, preferably at traffic junctions and in the vicinity of similar districts in adjoining neighborhoods
6. Internal street system - road design to be proportional to anticipated traffic load and entire system to provide efficient circulation within the area while discouraging through traffic

Perry's work emphasized the concept of the elementary school as a central point. The maximum walk to it from the farthest residence would be a half-mile and the neighborhood would have a population between 5000 and 10,000 people (Beyer 1965: 317). An application of Perry's concepts can be seen in the design of Radburn, New Jersey which was used as an example of good neighborhood design (Herbert 1972:227).

Examples of Clarence Perry's neighborhood plan can still be found in our cities today. However, many of these neighborhoods, particularly those in urban areas, have been allowed to physically deteriorate into slums. The Highway Act of 1954 and the guaranteeing of home mortgages by the Federal Housing Administration spurred the construction of suburban housing developments on open tracts of land outside cities (Levy 1988: 17,192). This allowed higher income-level people to move out of the city and take advantage of the opportunity to own a house of their own. Those who could not afford to move, mainly the elderly, ethnic minorities, recent immigrant groups and the economically disadvantaged, were left behind to deal with the increasing problems of the cities. This is still true today. With fewer resources at their disposal, many inner-city residents are continuing to fight a losing battle to keep their neighborhoods safe and healthy places in which to live and raise children.

The Benefits Provided by Neighborhoods

The majority of literature reviewed for this study identified three main contributions neighborhoods provide to their residents:

1. a sense of attachment to the area
2. an increase in social relationships among neighbors
3. a decrease in fear of crime and violence in the neighborhood

These three effects are interrelated, making it difficult to determine if one component must be present first to bring about the other two. For the purposes of this study, a brief examination of each one is presented with the understanding that they are of equal benefit to residents.

Attachment

Research has found that most people have a need to identify with, and feel an attachment to, the geographic area in which they live. This is believed to be true even when considering Goering and Rogowsky's finding that the average American changes his residence every five years (Rivlin 1987: 7). Stokols, Shumaker and Martinez go so far as to suggest that a failure to establish roots in an area may "threaten...(one's)...health and well-being" (Rivlin 1987: 15). Webber and Webber (1967: 44) add to this by stating, "The physical place becomes an extension of one's ego." A more recent definition of this concept comes from Proshansky, Fabian and Kamunoff who developed the idea of place-identity as a "substructure of self-identity" (Altman and Wandersman 1987: 8).

A number of studies have been done in urban slum areas which show this strong attachment to neighborhoods. In these areas, the concept of home extended beyond private property to include the surrounding public spaces of streets, sidewalks and parks (Fried and Gleicher 1970: 739). These were often

the same streets where residents played as children and where their families continued to reside. Keller found that the longer a person lives in a particular location, the stronger their attachments will be to it (Bayor 1982: 26). For working class people, in particular, the neighborhood can become the focal point of their lives (Kropat 1985: 149).

A common expression of neighborhood attachment is the concept of symbolic ownership. This feeling of ownership extends to outdoor public spaces which, because of their proximity, access and use, causes residents to feel a sense of collective responsibility for them causes and to view them as their own (Hester 1975: 20). The ownership is considered symbolic since it is not protected by law and there is no individual personal control exerted over the areas (Hester 1975: 58). The more an individual uses the space, the greater the feeling of ownership.

This sense of responsibility for areas not personally owned is important since it increases residents' interest in the area in which they live. Studies have found that the more attached a person feels to his neighborhood, the more likely he is to become active in its planning and development (Kropat 1985: 204).

Social Relationships

The second benefit derived from living in a neighborhood is the opportunity to form social relationships with others

living in the area. Schools, churches, local businesses and public recreational areas all provide places for frequent meetings between residents. The establishment of social networks has been found to be an important factor in the development of attachment to an area (Rivlin 1987: 12).

Local friendships are particularly important for the urban lower and working classes (Yancey 1973: 108). They provide a means of coping with the poverty and deprivation found in slums. A study conducted by Banerjee and Baer (1984: 164-165) found that neighborhood living appeared to be more important to blacks than whites. Parents with children and the elderly were also found to value the neighborhood more. The reasons given were largely based on social concepts, such as sociability, friendliness and family-relations. The establishment of these relationships rely in part on semi-public spaces and facilities found in the neighborhood (Yancey 1973: 111).

An example of the importance of social relationships, and the concept of attachment, for urban slum dwellers is a study of the West End of Boston conducted in the late 1950's by Marc Fried and Peggy Gleicher. This was a predominately Italian, working-class neighborhood with a high degree of residential stability.

Fried and Gleicher found that residents had a strong "local spatial identity" to the neighborhood which included both social relationships and local places (Gutman and Popenoe

1970: 734). A strong relationship was found between positive feelings about the neighborhood and positive feelings felt toward other residents (Gutman and Popenoe 1970: 735). This suggests that local social relationships have the ability to make a neighborhood, even one classified as a slum, a more enjoyable place to live. In addition, local physical spaces were found to be one of the most important places where these relationships formed and developed (Gutman and Popenoe 1970: 737).

The West End was a community with close social relationships, a "functional social system," a description of slums used by Melvin and Carolyn Webber in the book, "Taming Megalopolis" (1967: 49). However, the city considered it an eyesore, and in the early 1960's tore down many of the buildings, and wiped out the thriving neighborhood which had existed there. Although relocated to newer dwellings, many residents experienced a sense of grief over the loss of their old neighborhood (Kropat 1985: 163).

Security

A third effect felt by residents living in established neighborhoods is a reduction in their fear of crime and violence. In lower-class groups, particularly, fear of crime, burglary and assault is part of everyday life (U.S. Dept. of the Interior 1979: 51). This fear of crime often leads to

incidences of crime and works to break down neighborhood cohesion (Merry 1981: 5).

Lee Rainwater, in his study of public housing areas, found residents had a constant awareness of strangers in their area and routinely perceived them as being potentially dangerous (Helmer and Eddington 1973: 98). Walter Miller, in his work, found that "trouble" was a major concern for the lower-class (Helmer and Eddington 1973: 98).

The chief cause of residents' fear is unfamiliarity with an area and its inhabitants. Members of different ethnic groups are especially feared and seen as dangerous (Merry 1981: 160). Feelings of uncertainty, helplessness and vulnerability arise in people when they encounter individuals who display customs, manners of speech and conduct different from their own.

There are urbanized areas in this country where the residents feel secure and where crime rates are low. In these neighborhoods, streets and other public places are used for programmed activities, special events and casual socialization during both day and nighttime hours (Hester 1975: 95). The visible presence of people discourages acts of crime and violence which have the chance of being detected (Jacobs 1961: 119). Ethnic neighborhoods and those with a high level of civic pride usually have lower crime rates, also (U.S. Dept. of the Interior 1978: 76). The term, "defensible space" was created to describe those areas over which residents feel they

have control and can defend against intruders or criminals (Merry 1981: 231).

It has been found that a moderate reduction in an area's crime rate does not reduce the fear of crime. Only an increase in social relations, particularly between different ethnic groups, will reduce the fear people have toward one another and allow them to feel safe in their own neighborhoods (Merry 1981: 239-240). A sense of community, which can be developed through improved communication, appears to be the most important factor in establishing a safe and secure neighborhood (U.S. Dept. of the Interior 1978: 76).

CHAPTER 2
THE ORIGINS OF COMMUNITY GARDENS

Community gardens originated in Europe during the time of the Dark Ages. Monks planted the first gardens on monastery grounds and shared their horticultural knowledge with local townspeople (U.S. Dept. of the Interior 1975: 4). The villagers perfected their skills in gardens which were clustered together with their neighbors' as protection against invading groups (Minnesota Green News 1990: 1).

In more recent times, England has been credited with the evolution of community gardening as it is known today with the establishment of the first allotment gardens in 1731. These gardens were based on the "common field" or "open field" system used by their ancestors in which all the land around a village was one common farm where farmers worked together (Jobb 1979: 71). The allotment plots were privately owned and rented for one guinea a year, a fee which was considered quite high. They thrived until the 1830's when much of the private land was sold for industrial expansion. To replace the gardens some company owners provided land to their employees for development of gardens as a form of recreation after long days spent in the factories.

Although the country was in the midst of rapid change due to the Industrial Revolution, the Allotments Acts of 1887 and 1890 and the Local Government Act of 1894 were created to

ensure that the agricultural heritage of the country was not lost. These Acts required the establishment of garden plots in neighborhoods where there was a demand for them. This was followed by the Small Holdings and Allotments Acts of 1907 and 1908 which provided for plots of 500 square yards to citizens who had no access to land for gardening (Coe 1978: 11-12).

Community gardens have flourished in times of economic hardship and war. Rose Murphy, in the New York Botanical Garden's newsletter, Green Up Times (1991: 1-2), traces the origins of communal gardens in the United States. The concept was borrowed from England during this country's Panic of 1893, a time of high unemployment, labor disputes and stressful living conditions in cities. As a way of relieving urban pressures, the city of Detroit created vegetable gardens from privately donated land and unused municipal lots. The plots were made available to the poor and unemployed as a means of supplementing the assistance they received from the financially-strapped Poor Commission Fund. Although economics was the chief reason for the establishment of gardens, the city also recognized the personal benefits to be received from growing one's own food. They also provided a means of adaptation to a new way of life for the many immigrants who were beginning to pour into the city. Self respect and independence increased among participants. With the success of the program in Detroit other cities around the country established similar projects. However, as had previously

occurred in England, the improvement in economic conditions brought about a decline in government involvement in the program. Funds were withdrawn and the numbers of such programs were greatly reduced, although some managed to operate independently.

The next large-scale appearance of community gardens was during World War I. The National War Garden Commission was created to provide support for the Liberty Gardens planted by families back home supporting the nation's soldiers. The gardens provided a way for everyone to show their support for the troops overseas. When the war ended, so did many of the gardens. Shortly after, however, the country was in the depths of the Depression and the economic rationale for households growing their own food became evident again. This time gardens were called Relief Gardens and were supported by the Federal Work Projects Administration. For many households the family plot was their only form of aid. In New York City alone, almost 5000 gardens totaling 700 acres were created. When the country's economic situation began to improve the WPA withdrew funding and many of the gardens were abandoned.

The arrival of World War II spurred the revitalization of these gardens as a means to support the war effort. This was the time of the well-known Victory Gardens. Demand was high for plots and many were assigned through a lottery system. It is estimated that nearly forty million people were involved in the program (Jobb 1979: 73). Numerous programs were

established by PTA Committees in public schools. Country clubs and cemeteries provided land for gardens (Coe 1978: 14). The U.S. Department of Agriculture established a campaign to get Americans to grow vegetables as a means of promoting good health and well-being. The eating of vegetables was also considered a form of patriotism since poor nutrition was cited as a reason for the rejection of many men by the Selective Service. In 1944, home-grown produce accounted for 40% of the vegetables consumed in the United States (Murphy 1991: 2).

The most recent revival of community gardens in the United States began in the 1960's (Murphy 1991: 2). The widespread use of chemicals in modern farming caused many people to reject commercially-grown produce and grow their own using organic methods. This occurred at about the same time as the environmental movement which promoted protection of this country's natural resources.

An important source of promotion and support for the creation of these gardens has come from the non-profit organization, Gardens For All, established by the National Association for Gardening in 1972 in Shelburne, Vermont. The organization began with forty families in the Burlington area who requested assistance in setting up a garden. It has grown over the years to become the national clearinghouse for community gardening programs. Its purpose is to encourage the establishment of permanent garden sites, similar to the allotment program in England, as a way of guaranteeing the

continued existence of the plots. This would require the passing of legislation for it to be mandatory. Some assistance has been provided on the governmental level. In 1976, Congress gave \$1.5 million to the Department of Agriculture to encourage the creation of gardens in cities. Two years later Congress awarded \$3 million in Urban Gardening Funds to sixteen State Extension Services in sixteen cities (National Association for Gardening 1978: 3). Ten additional cities received funding over the previous year. These funds addressed a need expressed by people in the 1970's National Gardening Survey conducted by the Gallup Organization. The survey found that three out of four households in urban areas which were not currently involved in community gardening would do so if land were available (National Gardening Association 1987: 1). The amount of involvement found in community gardens today bears out this statistic.

CHAPTER 3

DEVELOPMENT OF A COMMUNITY GARDEN PROGRAM

Community gardens have been in existence for hundreds of years as a means of allowing people who had little or no land to grow food for themselves and their families. The gardens of today retain this original purpose, however, they are often tended by people who have no knowledge of agricultural practices. The existence of family farms where cultural and management experience could be obtained firsthand are largely gone. Also, many people interested in gardening live in areas where little private land is available or suitable for it. Local community garden programs provide an affordable way to get people involved in gardening.

Several groups have developed guidelines in the organization and management of community garden programs. The best known of these is the National Association for Gardening's program, Gardens For All, based in Shelburne, Vermont. The Association has been in existence for twenty years and from their studies of gardening programs throughout the country have developed a set of criteria for the formation of an effective program. Several books written on the subject have looked to the Association for guidance and their guidelines are presented here.

The National Association of Gardening identifies seven basic steps in developing an effective gardening program (Coe 1978: 78). They include:

1. Finding a sponsor
2. Selecting a site
3. Recruiting a coordinator
4. Developing a site plan
5. Advertising and enrolling
6. Preparing and maintaining sites
7. Encouraging communication

Individual programs vary in size from site to site with some utilizing a more formal framework than others. However, all programs can benefit from the information contained in the above steps. The following is a discussion of the seven main steps considered by the organization to be important in the formation of a community garden program as explained by Mary Lee Coe in her book, "Growing with Community Gardening" (1978). Several additional sources have been used and they are so noted.

1. Finding a sponsor

When the decision to establish a garden is made, a sponsor or sponsors should be found who will provide support in several forms to the program. This will eliminate the necessity of forming an independent non-profit organization and provides the program with financial, organizational, political and legal assistance. This support may be found in local government agencies such as city park or recreational programs, community development offices and mayor's offices. Sponsors may also be found among churches, corporations,

garden clubs and non-profit organizations (National Gardening Association 1987: 3). Gardens formed to benefit low-income groups can apply for assistance through the U.S. Department of the Interior's Bureau of Outdoor Recreation or the Department of Agriculture's Cooperative Extension Services. Other organizations suggested by Gardens For All include:

- Boy and Girl Scouts
- Chambers of Commerce
- Community Action Programs
- Community centers
- Community councils
- Fraternal organizations
- Landscape architects
- Newspapers
- Radio and television stations
- Redevelopment commissions
- Schools and universities
- Senior citizen housing and clubs
- Social service organizations
- Urban youth centers
- YMCA/YWCA

Support from these groups can take many forms and do not necessarily have to be financial in order to be useful.

In the past, federal funds have been provided through the U.S. Department of Agriculture's Expanded Food and Nutrition Education Program (EFNEP), HUD block grants, HEW Older Americans Act and ACTION minigrants (Jobb 1979: 63).

In order to interest potential sponsors in a garden program, a proposal should be drafted which includes the following information:

1. Yearly budget
2. Additional sources of financial assistance with which the sponsor may collaborate
3. A schedule of plot fees which will enable the garden to be self-supporting

4. Possible fund raising activities to supplement the requested contribution
5. Sources of horticultural assistance
6. A program for land-use management to assure long-term fertility of the soil
7. Possible educational programs which may include gardening skills, natural pest control and canning and freezing techniques.

In addition to the above items, a discussion of the benefits a garden can provide to a community should be included.

The goal of most community gardens is to become financially self-supporting as quickly as possible. To do this, a combination of plot fees and fund raising activities are used. A staggered fee schedule may be used which is based on the size of the plot. Many programs charge a flat fee which can run between ten to twenty dollars per year. A third alternative used by the Philadelphia Green program is the charging of twenty-five dollars the first year and nothing thereafter. This is used to target those individuals who are serious about participating in their program (Jobb 1979: 60).

2. Selecting a site

Potential garden sites can be found in many places. The most common are vacant lots which are often filled with trash and used as gathering places for illegal activities. If no lots are available, however, there are other options such as church or school property, industrial parks, utility rights-of-way, unused parking areas, rooftops and cemeteries (Nat. Assoc. for Gardening 1978: 6).

It is desirable to obtain a site which may be cultivated as a garden for a long period of time rather than developing a site which is on land available only temporarily (Jobb 1979: 75). This is important since it may take several years to increase the soil's fertility to an effective level. One way to do this is to acquire land through a land trust, a non-profit corporation which owns and manages the site. The trust rents out plots to gardeners on a long-term basis (Nat. Assoc. for Gardening: 11). Land trusts are often formed locally in cities and towns but one, The Trust For Public Land, operates nationally. The Trust purchases land for future transfer to local agencies or private land trusts when the agencies have secured the necessary funds (Minnesota State Horticultural Society 1990: 1). Other methods by which land may be acquired include renting, leasing, donations, leaseback and affirmative easement (Jobb 1979: 82).

Several things must be considered before a particular site is chosen. These include: sun and wind exposure, access to a water supply, soil fertility, ease of access for gardeners and past and present uses of the site (Johnson and Bonlender 1990: 4). Also, drainage and evidence of flooding should be noted. The site should receive at least half a day of full sunlight from a southern exposure, if possible (Jobb 1979: 77). Dense shade is to be avoided. The direction and intensity of wind throughout the year should be identified since some plants may need protection or staking if breezes

are too strong. Finding an adequate water supply can be a problem. If there is no water hook-up present, a neighbor whose property borders the garden may be willing to provide an outdoor spout in return for reimbursement for the increase in his water bill. Alternatives include an arrangement with the city to have access to a nearby fire hydrant or the storing of water in covered barrels on the site (Johnson and Bonlender 1990: 10). In most urban areas the land chosen for a garden will need extensive fertilizing to replace minerals which have leached from the soil.

It may take several years of amending to build the soil up to a suitable level for some crops. Knowledge of previous activities conducted on the site is extremely important since the soil may have been contaminated by heavy metals. Industrial facilities and homes with lead-based paint may have left a lethal residue which must be removed or covered over before anything can be safely planted. This can be an expensive and time-consuming process and it may be wiser to choose a more suitable location. If this is not possible, raised beds may be constructed which are filled with soil obtained off-site to a depth of at least twelve inches (Jobb 1979: 78).

3. Recruiting a coordinator

The program should have one person who is responsible for all aspects of the garden and who has the authority to make decisions regarding the operation of it. Although this

position is often voluntary, it is suggested that a salary be provided to attract individuals with horticultural knowledge and expertise in management and public relations. This position involves daily decision-making on a wide range of issues but it also requires the ability to deal with various agencies and organizations in the community. The coordinator often becomes a spokesperson for the program to local officials, sponsors and the media. An ability to involve participants in the program and the recruitment of volunteers is also necessary. It is important to maintain the enthusiasm of gardeners all year-round, particularly during the winter months. The coordinator can help do this through newsletters and winter activities which bring participants together.

Depending on the size of the program, it may be difficult for one person to perform all administrative duties. Often one or two additional employees are added to the staff to provide assistance to the coordinator. If funds are available, these positions may also be paid although they are frequently on a volunteer basis. Some programs designate assistants to specific positions such as resource person, garden person, contact person or financial person (Jobb 1979: 46). In addition, volunteers may be enlisted for various tasks particularly in the spring months when the program is gearing up for the growing season. This group of individuals is often a key to the success of a program and it is the

coordinator's responsibility to ensure their contribution is appropriately acknowledged.

The organizational structure often includes a steering committee which provides guidance in the beginning stages of the program and which also develops plans for the future (Johnson and Bonlender 1990: 7). This committee may include members of the sponsoring group, community leaders, advisors in various fields including public relations, gardening and fund raising, representatives of local organizations and the garden staff. Fundamental policy and goal issues are addressed which provide the underlying framework for the program.

A successful program, then, is made up of three groups: the staff which includes a coordinator and possibly one or several paid assistants, a steering committee and a group of enthusiastic volunteers who wish to see the program succeed. These individuals work together in various capacities and at different levels of responsibility to develop an ongoing program which can be maintained once the growing season has ended.

4. Developing a site plan

Once the land is found a site plan should be developed which provides for an adequate number of individual plots based on anticipated need and for areas of common use. Garden areas 25' x 30' are suggested and will provide 40 plots on a one-acre tract. However, sizes must be determined according

to the space available. The national average is seven hundred square feet and plots are staked and marked off by boards, rocks or other materials (Nat. Assoc. for Gardening: 15-16). Pathways four feet wide should be laid in strategic areas. It may also be necessary to provide space for a compost pile, toolshed, benches and trash cans. The entire garden area should be enclosed by a fence to discourage animals and intruders from entering.

5. Advertising and enrolling

When all details concerning the allocation of lots and their fees have been decided, neighborhood residents should be contacted about their possible involvement in the program. This may be done by a telephone call, newspaper advertisement or flyers posted around the neighborhood (Nat. Assoc. for Gardening: 22). A date should be reserved for a more detailed explanation of the program, its guidelines and rules, and the signing up of participants.

Many programs require participants to fill out a gardening agreement form which describes the rights and responsibilities involved in being a member of the garden. These guidelines are particularly important in the maintenance of the area and the scheduling of spring and fall clean-up days. Once the harvest is over and the garden is ready to be prepared for the winter, many gardeners lose enthusiasm for the project. A clean up of the plots is necessary as a precaution against the overwintering of insects and pests.

In the spring much work needs to be done to prepare the site for another growing season. If gardeners know from the beginning that their participation is expected, the work load can be easily managed. In place of personal involvement in the clean up process, a fee may be charged at the time of enrollment to pay for the services of an outside crew. In the event an individual plot is not properly maintained, the consequences should be explained. At the same time, the right to privacy, quiet and access should also be communicated to the gardeners.

Additional areas which may be covered in the agreement include the use of pesticides, a "no perennials" policy and a policy concerning the abandonment of plots. Once a program has been in operation for some time, areas of concern may emerge which can be addressed in subsequent years. A gardening agreement acts to formalize the relationship residents have to the organization and eliminate potential problems created by an unclear understanding of the program's purpose.

6. Preparing and maintaining sites

A program of site preparation is necessary every year whether a site is being planted for the first time or has been in cultivation for many years. A soil test should be done in early spring before any amendments are added. These tests are often done by cooperative extension programs at state universities for a small charge. The test will show

nutrients which may be missing in the soil and the amount of additional organic matter needed. Plowing and rototilling should be done to reduce soil compaction and make the soil friable. Fertilizers, nutrients and organic materials such as leaves, grass clippings, well-rotted manure and compost are added at this time.

Once the soil is prepared, plots and paths are laid out according to a previously-developed site plan. Depending on the type and size of garden, areas may also be set aside for a compost pile, tool shed, recreation area, portable toilet, communal bulletin board and trash containers. In addition to the growing of fruits, vegetables and flowers, gardens have the potential to become the site of social and recreational events and these may be encouraged by providing space for them.

A problem many gardens face, especially in urban areas, is the occurrence of vandalism. This may involve the stealing of plants and vegetables or malicious destruction of a site. Although it may not be possible to avoid it completely, some steps can be taken to reduce the chances of outsiders destroying a garden. One is to erect a fence around the area. This may not keep a determined vandal out but it delineates an area as out of bounds to those who pass by. During daylight hours intruders are less of a problem since there is usually someone present working in the garden. If daily activity is observed on the site, the occasions of vandalism usually

diminish. The night time hours may present a problem, however. It may be possible to enlist the assistance of local neighbors to keep a watch on the garden (Johnson and Bonlender 1990: 16). An offer of locally-grown produce may be an inducement for their help. A request to the police department for additional nightly checks on the site may also be helpful.

Lastly, guidelines should be developed for the enforcement of proper site maintenance practices. Gardeners should be encouraged to keep their plots neat and orderly so as to avoid the appearance of an abandoned site. Produce should be harvested regularly to remove obvious temptation (Johnson and Bonlender 1990: 16).

7. Encouraging communication

The exchange of information and ideas is an important aspect of a community gardening program. Levels of gardening expertise vary and some gardeners may require additional assistance in the application of techniques which ensure a successful harvest. New methods of production, management practices and plant varieties are introduced each year which may be of interest to everyone. A way of communicating this information is through the use of workshops or lectures conducted by people knowledgeable on the subject. Many programs publish monthly newsletters which contain articles on these subjects, as well as news concerning the local garden and similar programs operating in the area. Bulletin boards

are often used for the posting of notices and exchanging of information.

These methods provide a way for gardeners to personally identify with the program and facilitate communication between neighbors who may not have known each other previously. This may be particularly useful in situations where there is a difference in cultures. In some programs, immigrant groups are heavily represented having already grown much of their own food in their homeland. However, language is often a barrier to interaction between groups, especially for older people. The mutual experience of gardening can demonstrate the degree to which people from foreign cultures are similar rather than different.

The fall harvest is a good time to celebrate the successes of the season and many programs schedule festivals with games, music and picnics. Produce contests are often held similar to those of the 4-H. These activities provide an excellent opportunity for media coverage to let the community, and potential sponsors, know what the program is about and encourage support for it (Nat. Assoc. for Gardening: 30). It also creates pleasant memories of the garden to be remembered during the winter months and help keep enthusiasm for the program alive. It is also an opportune time for an evaluation of the program by participants to provide information which can be helpful in the formation of the next year's goals.

These are the seven basic steps suggested by the National Association for Gardening to be used in the organization of a community garden based on their study of gardens throughout the country. They are applicable to both large and small gardens and may be tailored to suit a particular program. The organization stresses that the key to success is careful planning and implementation.

A final method suggested by Minnesota Green (1991: 1) as a way to expand resources while at the same time increase the visibility of all community garden programs is the establishment of networks between local organizations. This can help to improve conditions at existing sites and work toward the establishment of new ones. Some of the possible benefits they see to be gained from doing this include:

- expansion of the power base and greater influence in decision making
- exchange of information
- identification of new resource sources
- formation of support groups in solving problems
- greater capacity to promote community gardening programs
- collaboration on special projects and celebrations

The solidarity among organizations which networking helps to create is a good way to ensure the continued growth and development of garden programs throughout the country.

CHAPTER 4

COMMUNITY GARDENING PROGRAMS THAT HAVE MADE A DIFFERENCE

Many major cities around the country utilize the community gardening concept to promote renovation and revitalization of urban neighborhoods. Successful programs may be found in San Francisco, Boston, Cleveland, Los Angeles, Seattle, Detroit, St. Paul, Minnesota and Washington, D.C. to name a few. However, two of the largest programs are located in Philadelphia and New York City. Both cities have well-established programs which provide outreach to many inner-city areas and have developed cooperative relationships with related agencies in their cities. A brief discussion of these two programs is presented as examples of the positive effect community gardens can have on neighborhoods.

Most of the literature detailing the benefits of these programs is anecdotal in nature. This is to be expected since it is difficult to measure residents' perceptions and feelings regarding their neighborhood. Gardens elicit an emotional reaction which is slightly different for everyone.

A study was also done of the Southside Community Land Trust's garden program in Providence, Rhode Island. In existence since 1981, this program is more recent than the others and smaller in scope. However, many of the issues they face are similar to those in larger urban areas. Several indicators were examined to discover any changes this

program's gardens may have had on the neighborhoods they are located in.

Philadelphia Green

In 1978, Philadelphia Green was created by the Pennsylvania Horticultural Society with a grant from the City's Office of Housing and Community Development as a community outreach program to instill pride among residents in low and moderate income neighborhoods using a variety of greening projects (Pennsylvania Horticultural Society 1988). All information used here concerning the program was provided by the Society.

Philadelphia Green provides assistance on approximately 200 projects a year and has sponsored over 1500 projects covering more than 1000 city blocks since its inception. Projects include community gardens, garden block and street tree block programs and educational programs and assistance. A recent effort has been the targeting of public housing authorities for greening projects. Approximately 45% of its funding comes from trusts, grants and corporate sources while the city provides 23% and the remaining 32% comes from proceeds of the Society's annual flower show. Their 1989-90 budget, the most recent fiscal year for which information was available, was \$2.2 million.

The successes of four independent gardens created over a six-year period led to the development of their Greene Towne

Countrie program which provides educational assistance to neighborhoods to enable them to develop their own gardens. Communities, often made up of a number of individual neighborhoods, must apply to become participants in the program and are selected based on involvement in previous greening efforts. The anticipated success of a community in the program is necessary at the start since the development phase may take from three to five years.

The application process involves the collection of data concerning the community's socioeconomic, as well as physical, characteristics. This is done through the formation of a community garden group whose members work closely with staff members from Philadelphia Green. Community organizations, associations and committees are identified and the possibility of developing working relationships with them researched. The garden group also formulates goals for the development of their community and, with Philadelphia Green staff members, explore possible ways of achieving them. This process usually takes six months to complete. If selected, the community moves to the implementation stage.

When implementing a program, the participating group strives to involve residents in the process through a variety of communication methods. Relationships are established with other community groups and with other projects which may exist. The program stresses the linkages which exist between neighborhood gardens and other projects occurring throughout

the community to provide a feeling of unity among residents. Training is provided to volunteers on topics which include horticulture, design, construction, networking and presentation techniques.

Once a program is well-established, a time period of three or four years, a dedication ceremony is held to celebrate the progress a community has made in its greening effort. This also provides an opportunity to let others know about the program and its success. After dedication, support for the community's efforts is ongoing and a yearly assessment is made by Philadelphia Green staff to ensure the program successfully meets the community's goals.

Although the Greene Towne Countrie program provides important benefits to a community on its own, many communities have been able to attract funding from other sources following their participation in the program. In the past, these funds have been used for housing rehabilitation, the construction of community centers and the creation of social programs. These activities have helped to further Philadelphia Green's goals of instilling pride and strengthening community leadership within inner-city neighborhoods.

New York City

There are probably fewer cities in the country which pose more difficulties to a greening effort than New York City. Its five boroughs are comprised of hundreds of neighborhoods

which have minimal amounts of green space and few ideal places for the installation of new projects. Violence, drug traffic and prostitution, in combination with other forms of crime are a daily occurrence in many neighborhoods. However, the city has had remarkable success in turning many vacant lots, which previously were sites for illegal activities, into productive garden plots. An estimated 700 gardens can be found throughout the city (Cohn 1991: 79). This study briefly describes four programs which work to provide green space for the City's residents.

Operation GreenThumb

Operation GreenThumb was created in 1978 by New York City's Department of General Services. It began as a program without a budget and with one part-time employee and has grown to become the largest municipally-run community gardening program in the country (NYC Dept. of General Services). More than 550 community groups participate in the program on over 1000 lots. Groups are organized in several ways. Most common are block associations, civic associations and organizations grouped by streets. Lots are leased for \$1 per year and technical and material assistance is provided. A popular yearly event is the "City Gardeners' Harvest Fair" which is the largest agricultural event in the City and similar to a county fair. Flower and vegetable contests are held along with a number of other events.

The organization has found that the gardens serve an important function in creating focal points for neighborhoods. Gardens are open to all residents for meetings, events or relaxing whether they participate in the program or not. This provides a place for people from a wide variety of ethnic groups to get together and discover their commonalities.

The Council on the Environment of New York City

In 1970, an effort to solve many of the City's environmental problems led to the formation of the Council on the Environment of New York City (Council on the Environment of New York City). It is a privately-funded citizens' organization which operates out of the Office of the Mayor. The organization offers a number of programs which address a wide variety of environmental issues including the need for green space in neighborhoods through the establishment of the Open Space Greening Program. Under this program, assistance is provided to community gardens through the Plant-A-Lot, Green Bank and Grow Truck programs.

The Plant-A-Lot program, which began in 1978, works with residents in creating gardens, parks and playgrounds. The program's goal is the creation of two or three new gardens a year and by 1990 seventeen gardens had been created (Council on the Environment of NYC). Sites are chosen based on their ability in providing long-term benefits to a neighborhood. The program provides assistance, for a period of three to five

years, to residents in order to help them make the garden a permanent addition to their community.

Green Bank provides 50/50 matching funds to existing parks and gardens for supplies and materials. This allows groups to make purchases at one-half the wholesale price. Grow Truck is a mobile program which loans tools to garden groups. It transports and distributes materials to sites and provides horticultural information to gardeners. It also works with other organizations, such as the Green Guerrillas, New York Botanical Garden's Bronx Green-Up and the New York City Street Tree Consortium in implementing their programs.

Green Guerillas

The Green Guerillas is a non-profit organization made up of approximately 300 volunteers who work with residents throughout the City in establishing gardens (Green Guerillas 1991). Based in the Bowery, the group dates back to the 1970's and were the first to recognize the benefits community gardens could provide to the City's residents (Cohn 1991: 81). They focus their efforts in neighborhoods, elderly housing projects and residences for the homeless and people with AIDS (Green Guerillas 1991). Their work in assisting neighborhood groups who were attempting to create gardens on their own caused the City to establish its own program, Operation GreenThumb.

Although they undertake projects throughout the City, the Green Guerillas have recently joined with gardeners on the Lower East Side to re-form the LES Garden Coalition. The Coalition provides support to over forty community gardens and is currently working to establish more. Potential sites are being threatened by the proposed construction of two thousand housing units in the area. Recognizing the need for additional housing, the Coalition is working to show that sufficient land is available for both the units and gardens. Their work has included a block-by-block land use survey of the area, the hiring of an architectural firm to conduct open space and urban design studies and the creation of maps and plans illustrating effective solutions to the housing and open space issue (Green Guerillas 1990). The Coalition is also working with the City to develop a policy which will provide for the preservation of open space.

New York City Housing Authority Tenant Gardening Program

The original intent in developing the New York City Housing Authority's Tenant Gardening Program was to improve the appearance of the City's ninety-two housing projects (New York City Housing Authority: 3). Due to the positive effect it has exerted on participants over the last thirty years, however, the City views it as more of a social program for the residents of public housing. Plans for the construction of new housing developments routinely include sufficient space

for gardens. Today, the program is considered one of the oldest and most successful of its type in the country.

The program operates year-round with a variety of activities designed to maintain enthusiasm at high levels throughout the winter months. It also brings people together to maintain acquaintanceships developed while working side by side in the garden. Yearly contests are held and judged by expert horticulturists with prizes awarded to provide added incentive for involvement.

The results of the Housing Authority Tenant's Gardening program is similar to that of other communal garden programs. A rise in the self-esteem of participants has been seen, more harmonious relations have developed between people of different backgrounds, and vandalism has been reduced in gardens which are carefully tended. In addition, the Authority has experienced better relations between itself and residents in the management of its developments (New York City Housing Authority: 5).

The above are just four communal gardening programs operating in the City of New York. Other groups involved in greening projects include: the New York Botanical Garden's Bronx Green-Up, the Citizens Committee for New York City, the New York City Department of Parks and Recreation Central Horticulture Office, the Magnolia Tree Earth Center, the New York City Street Tree Consortium and the Horticultural Society

of New York. All offer assistance, many free of charge, to groups interested in starting their own programs (Roach 1991: 65).

CHAPTER 5

SOUTHSIDE COMMUNITY LAND TRUST

The Southside Community Land Trust was founded in Providence, Rhode Island in 1981 as an independent, non-profit organization. Its goal is to improve the quality of life for the city's urban residents through the establishment of community gardens, green spaces and environmental awareness programs (Southside Community Land Trust). The Land Trust is headquartered in the area of the city known as South Providence. This area contains much of the city's low-income population who reside largely in housing projects and three-story tenement buildings. Open space is limited and what is there is often in the form of trash-filled vacant lots.

The Trust's community garden program began eleven years ago with a half-acre lot worked by twenty families. Today, the program has eleven working gardens with plans to create five more this year. Approximately 200 gardeners, each representing on average a family of five people, participate in the program. Southeast Asians make up seventy-five percent with the remaining twenty-five percent divided among whites, blacks and Hispanics. The majority of gardeners are over thirty-five (few participants are under thirty) and extends to eighty years of age. It is a family-oriented group with many children helping their parents. The group is fairly evenly divided between males and females and many have had prior

gardening experience. Approximately ninety percent live in rental units (Marietta 1992).

The Land Trust staff is made up of three full-time and two part-time paid employees and a number of volunteers. According to the June 30, 1990 budget, yearly operating expenses are \$174,000. Approximately 60% of this comes from government contracts and grants, such as the Community Development Block Grant, from plot fees and from produce sales from the Trust's City Farm which produces and sells organically-grown salad greens to area restaurants. The remaining 40% is in the form of donations from local foundations, corporations and individuals.

The source of open space for the creation of new gardens is the Providence Special Vacant Lot Program created by the city in 1986 (Providence Dept. of Planning 1991). This program acquires and disposes of vacant property which has a blighting effect on city neighborhoods. Initially, adjacent property owners are given the opportunity to purchase lots bordering their own. If they are not interested, the land is offered to nonprofit agencies for the development of low and moderate-income housing units. If the land is buildable but rejected by non-profits, an outside developer is given third preference. Lots which are undersized for building purposes, 3200 square feet, are available for community gardens. The land may be bought outright or leased for a dollar a year. If a non-profit agency is interested in buying a piece of

property but must wait for funding to do so, the city will lease the land for the creation of a garden on a year-to-year basis until such time as the non-profit obtains the necessary funds (Lepore 1992).

The size of a Land Trust garden is determined by the dimensions of the lot and range from eight to fifty plots. An average individual plot is 4' x 16' and is rented to a gardener for ten dollars a year. Plot fees are used to pay for a variety of materials which may include fencing, compost, fertilizer, pest management supplies such as fungicides, and water. Timber is also a necessary expense since the high incidence of lead in the soil calls for the construction of raised beds. A limited supply of tools are available for use and seeds are often donated by seed companies for distribution to gardeners. With the total cost of a new garden approximately \$3000, it is clear that the plot fee is merely a token payment. For many low-income families, however, growing their own vegetables for less money than it would cost to buy them is a necessity and higher fees might cause some participants to drop out.

Regulations in the gardens are few but they are strictly enforced. A potential gardener is required to sign a contract with the Land Trust and abide by its requirements. In April, a Saturday is designated as a clean-up day and members participate in clearing debris and readying the site for spring planting. A similar day is scheduled in October in

preparation for the winter months. Gardeners are expected to perform regular maintenance duties in their individual plots. If this is not done, two warnings are given after which the gardener is asked to leave the program. This is important since a carefully-tended garden signals the routine presence of people and tends to discourage vandals. The Southside gardens have experienced minor vandalism and it has been found that a locked garden is an effective deterrent. The rules have not discouraged people from joining the program and many gardens have a waiting list of potential participants.

This spring, in cooperation with the Socio-Economic Development Center for Southeast Asians, the Land Trust has begun a Farmer's Market in the Kennedy Plaza area of downtown Providence (Marietta 1992). The Market is held twice a week to enable residents and people employed in the city to purchase fresh produce, while at the same time, providing an opportunity for community gardeners to supplement their income. Although it has been held only a few weeks, initial sales show it to be a success. Its most important contribution, however, may be the incentive it provides to people to become involved in an activity which allows them to help themselves.

Indicators of Change

The majority of the literature available on community gardens and the effects they have on neighborhoods and their residents is anecdotal in nature. Peoples' perceptions of changes in their communities once a garden has been established have been the focus of most of it. In collecting data for this project, no studies were found which used statistical or experimental data for evaluation purposes. An attempt was made to address the need for such data by considering three indicators of change. These included building construction and demolition figures, the incidence of serious crime and the installation of street trees. Four sites, located on Somerset Street, Dudley Street, Peace Street and a section of Potters Avenue between Prairie Avenue and Eddy Street, were selected as study gardens. In addition, a review of the Providence Redevelopment Agency's Special Vacant Lot Program was done to determine the potential for an expansion of the community gardening effort in the city.

Description of Gardens Surveyed

Four gardens, of the Land Trust's eleven, were chosen for evaluation purposes in March, 1992. The selection was made based on two factors. They all appeared to be well-established and two of them, the Somerset and Dudley Street gardens, were in close proximity to the Land Trust's headquarters. The likelihood of obtaining information on them

appeared higher. Also, the gardens chosen were located in relatively low-crime neighborhoods. It was suggested by the Land Trust that several gardens be avoided for safety reasons.

Two of the gardens chosen, on Dudley Street and Somerset Street, have been in existence the longest and are in the West End neighborhood of Providence. Somerset Street is the site of the initial garden, established in 1981, and is situated across the street from the Land Trust's headquarters. This garden is across the street from the Dudley Street site. With fifty-eight plots, it is the largest of the four gardens.

Prairie Avenue and Friendship Street cross Somerset and the street ends one block from the intersection of Broad Street and Elmwood Avenue. The opposite end of the street terminates at Gay Street which borders Women and Infant's Hospital. The street is informally divided into two parts. The lower half from Gay Street to Prairie Avenue contains hospital-owned property and no residential units. The upper half extending from Prairie to Broad is residential and includes a school.

The Dudley Street garden was created in 1983, has thirty-two plots and is located several lots away from the headquarters. Its size has recently been reduced to provide land for development which, it is believed, will be in the form of low-income housing (Bassow 1991). Dudley is also composed of two parts: one half extends off Eddy Street and provides side entrances to Rhode Island Hospital. Many

buildings and lots, owned by or associated with, the Hospital are found along the lower half of the street. The upper half extends for one block from Prairie Avenue to a dead end. The majority of this half is made up of three-story residential tenement houses. The network of highly-traveled streets found in this neighborhood makes it a congested area with a high concentration of two and three-story residential units.

Peace Street extends from Broad Street on one end to Dexter Street on the other. It is bisected at its approximate midpoint by Elmwood Avenue. It is also located in the West End. St. Joseph's Hospital is located at the corner of Peace and Broad Streets and has entrances along Peace Street. The remainder of the street is largely residential with one, two and three family homes. The garden here is relatively new, having been established in the spring of 1989 and currently has twenty-three plots. Plans are currently underway to expand this garden to meet an increased demand for plots in the Dudley and Somerset Street gardens (Bassow 1991). It is not known exactly how many additional plots will be created.

The fourth garden in the study is located on a section of Potters Avenue which runs between Eddy Street and Prairie Avenue. This garden is located in the most run-down section of the city, South Providence. A few infill housing units have recently been constructed on the street but the majority of it is lined with tenement apartments, many in poor condition.

The garden, created in 1986, was planted for six years on a site loaned to the Land Trust. However, this year it is not being used by request of the landowner. On the advisement of her lawyer, the owner has decided to let the garden lie fallow for a year to protect her ownership rights. It is expected that next year she will once again agree to the Land Trust's use of the property. When in operation, it contains twenty-nine plots. During the time of site selection in late winter, the change in status of this garden was not known. It only became so once the study was underway. However, the fact that the garden is not active this season does not affect a study of it for past years. For this reason, it remains a component of this study.

Construction and Demolition Permits

Increased construction rates can be one indicator of the revitalization of a community, particularly if they are combined with an increase in demolition permits. The figures below were obtained from the Providence Department of Inspection and Standards beginning with the year a garden was established and concluding in March of 1992. The results are as follows:

		Construction	Demolition
Peace Street	- 1989	0	0
Dudley Street	- 1983	1 hospital bldg. 5 dwellings	4 commercial 1 dwelling

Somerset Street - 1981	9 dwellings	2 dwellings 1 commercial 5 garages
Potters Ave. - 1986	3 dwellings	0

Peace Street has had no new construction or demolition work occur since 1989. The garden here has been in existence for a relatively short period of time and it is probably too early to expect any significant changes in the neighborhood which may be contributed to it.

Changes have taken place on Dudley Street since 1983 but they do not appear to have any relation to the garden. The five buildings which have been demolished are all located on the lower portion of the street. Both sides of this lower section are lined with property either owned by Rhode Island Hospital or affiliated with it. One of the building permits issued during this time period was for a hospital building. It is assumed the Hospital has its own plans for future expansion which are not influenced by others' efforts to revitalize the surrounding neighborhood. The second construction permit was for the erection of five townhouses on the upper end of Dudley Street in the vicinity of the garden. A review of the area, however, failed to show the existence of any new construction.

Demolition work which has occurred on Somerset Street is also located in the vicinity of Rhode Island and Women and Infants Hospitals. As is the case with Dudley Street, it is

felt that the existence of a community garden on this street played no part in the removal of these buildings.

There has been the construction of nine dwelling units which appear to be in the form of low-income housing. They are located a block from the garden.

The study area on Potters Avenue had three housing units erected in 1989. One is a two-family duplex located a block from the garden. The third unit is listed with the Department of Inspection and Standards as a one-family house but it could not be located on the street. It seems likely that it was never built. No demolition permits have been issued since the garden was created in 1986.

Conclusion

A study of these four streets fails to show a relationship between the existence of a neighborhood garden and construction and demolition permits. There are several reasons for this. One is that the majority of changes which took place on Dudley and Somerset Streets occurred on property owned by several local hospitals or agencies and businesses affiliated with them. These institutions have had an effect in shaping the surrounding neighborhood on their own. In addition, demolition work occurred on only two of the four streets and was located in areas bordered by the hospitals. In several instances, construction permits which were issued for sites in proximity to a garden could not be located. The

lack of sufficient financing may have been a factor which would exert a more decisive influence than that of a garden. Finally, it is likely the time frame was not long enough to witness any semi-permanent changes in the structural appearance of the neighborhoods or to detect a cause and effect relationship. The short period of time in which the Land Trust's program has been in existence was a deterring factor in the study.

Crime Rates

A frequent comment made, particularly by residents, following the establishment of a garden is that crime in the area has been reduced. Narcotic and prostitution trafficking is commonly mentioned as occurring less frequently. To determine if these casual observations could be substantiated, a review of crime statistics for the streets the study gardens are located on was done for the years 1989, 1990 and the period of January, 1991 to November, 1991. These figures were obtained from the Providence Police Department's Special Projects Division (1991). Eight types of criminal activity were selected and evaluated according to: their frequency of occurrence during the entire year, frequency for the time period of May to September, the time of day the incident occurred and changes or trends which may have developed over the three-year period.

Several factors exist which may have had a biasing effect on the results. First, although statistics were requested for the past ten years the Police Department could provide data for the last three years only. Information was available for the entire twelve months of 1989 and 1990. However, statistics for December, 1991 were not provided and there was no explanation for this. It is difficult to ascertain to what degree their absence had an effect on the results. For an unknown reason the August, 1991 data for Peace Street is also missing. This makes it difficult to make accurate comparisons.

The location where a crime is recorded as having taken place is either listed as a building address or as "000", designating that no structure is involved and has most likely occurred along the street. The accuracy of this location is questionable since certain crimes may occur on one street but the perpetrator may be apprehended on a neighboring street. There is no method to determine the accuracy of the location.

Most of the categories used are self-explanatory with the possible exception of two - robbery and larceny. Although they appear to mean the same thing there is a difference between them and both terms are used. According to Webster's New Universal Unabridged Dictionary (1979), larceny is the taking of another's property without consent and with the intent of depriving the owner the use of it. The owner may or may not be present. Robbery, on the other hand, involves the

presence of the owner while the seizure of personal property takes place. It involves the physical taking of possessions from the owner's person or their immediate vicinity and includes violence or intimidation (Webster 1979).

A review of crime statistics for the years 1989, 1990 and 1991 for the four streets shows little in the way of any developing trends (see appendices 1-4). This is difficult to do for a three-year time period. However, several observations may be made from the data.

In the categories of larceny, robbery and malicious behavior, three out of the four streets experienced a decrease in occurrences from 1989 to 1991. Motor vehicles thefts and assaults were down for all four streets. A slight rise may have taken place in 1990 but all of these categories showed a decline by November, 1991. The largest decreases occurred on Dudley Street with larceny down 68%, motor vehicles thefts down 78% and malicious behavior down 82%. Peace Street had 65% fewer larceny incidents and 68% fewer assaults. These figures are somewhat deceiving since a small decrease in actual occurrences can be reflected as a disproportionately large percentage decrease since the number of reported incidents is fairly small. For example, a decrease from eight robberies to four shows a 50% decrease. The only significant increase was in the number of cases involving breaking and entering. They were up for Peace and Somerset Streets and Potters Avenue.

The spring and summer months of May through September were studied to determine if the longer days of these months had an effect on crime rates. The percentages of summer occurrences compared to the entire year may be found in the Appendix. Out of a total of 32 possible occurrences (eight categories for each of the four gardens), there were nine cases where two to three years accounted for 51% or more of that crime having taken place during the May to September time period. This means that only 28% of the time a crime took place more often during the spring and summer months than the fall or winter months. This would seem to show that more serious crime takes place when gardens are not actively used. Although this may be true, there is no evidence to show a definite cause and effect relationship. It could be suggested, however, that the longer days of summer which allow people to be out of doors more often may have the effect of discouraging some cases of criminal behavior. The presence of people in a garden is fairly predictable and may help in deterring some illegal activities.

A comparison was made between the 1989-90 time period and the 1990-November, 1991 period for each category to see how they may have changed. In the one year period between 1989 and 1990, fourteen crimes were down, fourteen were up and four remained the same. Between 1990 and November, 1991 nineteen crimes were down, eight were up and five remained unchanged. This suggests an overall decrease between 1989 and 1991.

The time of day a crime occurred during the May to September period was studied to see if there was a possible link between longer daylight times with more activity, and fewer crimes. If so, the establishment of a garden with its day-long presence of people could help to reduce rates even more during daylight hours. Two time periods were considered, 6 am to 9 pm and 9 pm to 6 am. Three crimes were selected which were likely to occur out of doors and considered to be more sensitive to detection by onlookers. These included larceny, robbery and breaking and entering. Individual occurrences for each category were placed in one of the two time periods for the three years and the results tallied.

The results show that out of 36 possible cases, the majority of crimes occurred during daylight hours 24 times, or 67%, and occurred during nighttime hours 4 times, or 11%. In eight cases, 22%, the same number of incidents took place in each time period. Potters Avenue was the exception with an equal number of crimes occurring during the day, during the night and equally occurring both day and night. This appears to show that, at least in the categories of larceny, robbery and breaking and entering, more incidents take place during the day than during the night. This is in opposition to the commonly-held belief that thieves are more active when they are harder to detect, as under the cover of darkness.

In these instances, gardens and the increased presence of people in them seem to have no effect on these crimes. A more

significant factor may be that houses are left vacant during the day while residents are at work. In addition, the gardens studied here are fairly small and may not have enough people working in them during the day to be considered a threat. The gardeners, themselves, may also be employed during the day, lessening the impact their presence would make.

Conclusion

A study of crime statistics for the period of 1989 to November, 1991 appears to show a decrease in the occurrences of some crimes for all four streets. Total increases occurred in breaking and entering cases only. It appears that fewer crimes occurred during the spring and summer than during the fall and winter. Between May and September more crimes were committed during daylight hours than during the night. These results fail to show a clear link between community gardens and decreased crime. With a study this size it may not be possible to do.

Providence Street Tree Program

The successful establishment of a greening project in a community often leads to an increase in peoples' appreciation of natural environments and encourages further efforts toward their development. One visible change which often occurs in neighborhoods after the installation of a garden is an increase in the planting of street trees. This is usually

done by a city agency, often at the request of residents.

An attempt was made to determine if there existed a relationship between the creation of a garden and an increase in the number of trees planted in a neighborhood. Following a telephone interview with John Campinini of the City Forestry Department, this proved to be impossible. As described by him, the city's Street Tree Program is actively involved in the solicitation of residents and neighborhood groups for involvement in the program. The Department is pro-active in its approach. Groups generally do not seek the planting of trees in their communities on their own. They become involved due to the program's campaign to get them involved.

A slightly different situation exists with the Mary Elizabeth Sharpe Street Tree Endowment program. The Endowment, in partnership with the Providence Department of Public Parks and the Providence Street Tree Task Force formed the Neighborhood Planting Program in 1989 to provide matching grants to community groups wishing to plant trees along their streets (Providence Dept. of Public Parks). Groups may apply to the Endowment for grant monies to purchase five to fifteen trees in exchange for planting and maintenance duties. Without funding, a single planting would cost an individual \$75 per tree so planting as a group is an relatively easy, cost-free way to provide shade and greenery to a neighborhood.

In a telephone interview with its coordinator, Lesley Urgo (1992), it was explained that individuals and groups

apply to the Endowment for funds to cover the cost of a tree and its planting. This fall she estimates fifteen sites will be chosen to receive funds, although over forty-five applications have been received. Only those sites with a high involvement of resident participation will be considered. This can present a problem since many of the neighborhoods have a high turnover in resident population. Peoples' interest in caring for property which they do not personally own and for which they had no initial involvement in is often low. Also, the Endowment does not award funds for a "piece-meal" approach to planting. They attempt to plant trees in proximity to each other in order to make an impact, such as along one side of a street. This necessitates the involvement of many residents and is often difficult to achieve.

Although the Endowment's approach differs from the city's, it was also difficult to obtain data from them to try to establish a link with the gardens and the planting of trees. As an alternative to this data, a windshield survey was done to locate any young trees existing along the four study streets.

Dudley Street, the site of one of the first gardens, had one tree. Its existence and apparent good health, however, may be due to factors other than the nearby garden. The original founder of the Land Trust, Deborah Schimberg, resides on the street with her family in a renovated tenement house. The Schimbergs appear to have invested much time and money in

their surroundings and this attention has probably been extended to the recently-planted tree in the vicinity of their home. It may also have been planted at their request in which case the tree carries a bias with it for evaluation purposes.

Of the four gardens studied, the one on Somerset Street is the largest and appears to be well-cared for. Six trees have recently been planted along the street, although it is not likely this is due to the garden. The Community Preparatory School is a block down from the garden and it is here the trees are planted. They appear to have been planted at the request of the School, and if this is the case, no interest on the part of residents was involved.

The Peace Street garden is in the rear of St. Joseph's Hospital. Four trees were found here; one, a sapling and three of a larger size but estimated to have been planted within the last several years. Although the trees are present, some biases may exist here as well. Several houses on the street appear to have been rehabilitated and this may have been the catalyst for the plantings. One street over, on Whitmarsh Street, several houses have been renovated by the Providence Preservation Society and trees have recently been planted on this street. A similar situation probably exists on Peace Street. The renovation work this area has experienced may be due to its close proximity to the Hospital and the benefits this location affords. If this is the case,

it is unlikely the garden had any effect in the planting of these trees.

A review of the area of Potters Avenue between Prairie Avenue and Eddy Street showed no new plantings of trees. It appears there has never been an effort to plant here so the lack of trees can not be attributed to neglect on the part of residents.

Conclusion

A link between street tree planting and the creation of a community garden does not appear to be possible in this study. The primary data needed to make an accurate evaluation was lacking. In its absence, secondary data was used which was of minimal assistance in establishing a cause and effect relationship.

Special Vacant Lot Program

The Providence Redevelopment Agency through its Special Vacant Lot Program is responsible for the disposal of vacant land in the city's neighborhoods, as described above. Land available for the creation of gardens must measure less than 3200 square feet, be rejected for purchase by adjacent property owners and be found unsuitable for use as low-income housing (Providence Dept. of Planning 1991).

A review of the program's listing of available lots, dated January 8, 1992 and revised from the original listing of

June 1991, shows that 47 out of 146 lots in the city are under 3200 square feet. They are located in eight neighborhoods including:

West End	12	Manton	3
South Providence	1	Smith Hill	13
Broad & Elmwood	12	Mt. Pleasant	4
Washington Park	1	Olneyville	1

Most of the lots are found in the poorer sections of the city with the exception of the Smith Hill and Mt. Pleasant lots.

The zoning designation for these lots and the number of lots in each zone are as follows:

R1	light residential	5 lots
R2	2-family units	2
R3	multi-family units	32
R4	apartments houses	6
M1	light industrial	1

Zoning information for one lot in the Broad and Elmwood section was unavailable.

As the above figures show, the majority of vacant lots are in areas zoned for multi-family units. These units often have small yards which are shaded by surrounding three and four-story buildings making the yards unsuitable for use as gardens. These areas also have higher densities of people which increases the demand for recreational open space. The siting of community gardens on under-sized lots found in these areas could serve a useful purpose for residents.

Summary

This study attempted to quantify subjective observations reported by neighborhood residents and agencies following the establishment of a community garden. In the case of the Southside Land Trust's program this was not possible to do. Although some changes were detected, the results were not sufficient to provide a cause and effect relationship.

The time period used in the study was not of a sufficient duration to provide data which could be extracted from biasing conditions which may have existed. In the event an influencing factor was detected, it may have been possible to retain enough data unaffected by it, if the time period had been longer. Results are highly subject to influencing factors which may take a longer time period to be recognized. It is mandatory that their effects be incorporated into a study before any absolute conclusions are formed. It is also likely that three years is not a long enough time span to detect emerging trends.

In the case of this study, the sample size was not sufficiently large enough, nor the time period long enough to provide data on which accurate conclusions could be drawn. However, it may still be possible to do so once these deficiencies are corrected.

CONCLUSION

The revitalization of this country's urban areas is a multifaceted task which will require keen insight and innovative approaches in order to bring about change. The specialized knowledge of professionals will be needed in addressing diverse issues which share the common goal of making cities viable places in which to live and work. There is a need, however, for locally-based initiatives which contribute in subtle ways to the revitalizing of neighborhoods.

Community gardening programs, although small in scope, can make a contribution to the renovation effort. They frequently operate on minimal funds and are able to provide a visible sign of improvement in a relatively short period of time. Their main focus is the involvement of residents in the planning process and they have been shown to be effective in bringing about change on the local level.

APPENDIX 1
 CRIME STATISTICS FOR STUDY GARDENS - YEARLY

<u>Dudley Street</u>	<u>1989</u>	<u>1990</u>	<u>1-11, 1991</u>
Larceny	41	32	13
Robbery	0	5	2
Assault	15	14	9
Breaking & Entering	1	3	1
Narcotic violation	1	1	0
Property damage	5	4	2
Motor vehicle theft	23	8	5
Malicious behavior	17	7	3
<u>Somerset Street</u>	<u>1989</u>	<u>1990</u>	<u>1-11, 1991</u>
Larceny	6	6	10
Robbery	0	2	3
Assault	8	8	4
Breaking & Entering	3	5	9
Narcotic violation	4	0	0
Property damage	0	2	3
Motor vehicle theft	6	4	5
Malicious behavior	5	10	7
<u>Peace Street</u>	<u>1989</u>	<u>1990</u>	<u>1-11, 1991</u>
Larceny	26	15	9
Robbery	3	5	1
Assault	30	24	9
Breaking & Entering	10	9	15
Narcotic violation	1	5	4
Property damage	1	0	2
Motor vehicle theft	12	4	6
Malicious behavior	6	5	3
<u>Potters Avenue #20-188</u>	<u>1989</u>	<u>1990</u>	<u>1-11, 1991</u>
Larceny	4	8	1
Robbery	0	2	2
Assault	6	7	3
Breaking & Entering	10	6	12
Narcotic violation	1	2	5
Property damage	1	1	0
Motor vehicle theft	3	1	0
Malicious behavior	6	4	2

Source: Prov. Police Dept. Offense Listing 1989-91

APPENDIX 2
 CRIME STATISTICS - MAY THROUGH SEPTEMBER

<u>Dudley Street</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	11	13	7
Robbery	0	3	1
Assault	1	4	2
Breaking & Entering	1	2	1
Narcotic violation	0	0	0
Property damage	2	0	2
Motor vehicle theft	12	6	2
Malicious behavior	5	3	0

<u>Somerset Street</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	2	4	6
Robbery	0	2	0
Assault	5	2	1
Breaking & Entering	1	1	3
Narcotic violation	2	0	0
Property damage	0	0	2
Motor vehicle theft	4	1	0
Malicious behavior	1	2	1

<u>Peace Street</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	15	7	6
Robbery	1	4	1
Assault	13	11	3
Breaking & Entering	6	5	10
Narcotic violation	1	3	2
Property damage	1	0	0
Motor vehicle theft	3	2	2
Malicious behavior	3	5	2

<u>Potters Avenue</u> <u>#20-188</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	1	3	1
Robbery	0	1	0
Assault	3	2	1
Breaking & Entering	6	2	7
Narcotic violation	0	1	3
Property damage	0	1	0
Motor vehicle theft	0	0	0
Malicious behavior	2	0	1

Source: Prov. Police Dept. Offense Listing 1989-91

APPENDIX 3
 CRIME STATISTICS FOR STUDY GARDENS
 MAY THROUGH SEPTEMBER - % OF TOTAL OCCURRENCE

<u>Dudley Street</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	27 %	41 %	54 %
Robbery	0	60	50
Assault	7	29	22
Breaking & Entering	100	67	100
Narcotic violation	0	0	0
Property damage	40	0	100
Motor vehicle theft	52	75	40
Malicious behavior	29	43	0

<u>Somerset Street</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	33 %	67 %	60 %
Robbery	0	100	0
Assault	63	25	25
Breaking & Entering	33	20	33
Narcotic violation	50	0	0
Property damage	0	0	67
Motor vehicle theft	67	25	0
Malicious behavior	20	20	14

<u>Peace Street</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	58 %	47 %	67 %
Robbery	33	80	100
Assault	43	46	33
Breaking & Entering	60	56	67
Narcotic violation	100	60	50
Property damage	100	0	0
Motor vehicle theft	25	50	33
Malicious behavior	50	100	67

<u>Potters Avenue</u> <u>#20-188</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Larceny	25 %	38 %	100 %
Robbery	0	50	0
Assault	50	29	33
Breaking & Entering	60	33	58
Narcotic violation	0	50	60
Property damage	0	100	0
Motor vehicle theft	0	0	0
Malicious behavior	33	0	50

Source: Prov. Police Dept. Offense Listing 1989-91

APPENDIX 4
 CRIME STATISTICS FOR STUDY GARDENS
 MAY THROUGH SEPTEMBER - TIME OF DAY

Dudley Street

Larceny

	<u>6am - 9pm</u>	<u>9pm - 6am</u>
1989	10	1
1990	12	1
1991	7	0

Robbery

1989	0	0
1990	1	2
1991	1	0

Breaking & Entering

1989	1	0
1990	2	0
1991	1	0

Somerset Street

Larceny

	<u>6am - 9pm</u>	<u>9pm - 6am</u>
1989	1	1
1990	4	0
1991	5	1

Robbery

1989	0	0
1990	1	1
1991	0	0

Breaking & Entering

1989	1	0
1990	1	0
1991	3	0

Source: Prov. Police Dept. Offense Listing 1989-91

APPENDIX 4
 CRIME STATISTICS FOR STUDY GARDENS
 MAY THROUGH SEPTEMBER - TIME OF DAY

Peace Street

Larceny

	<u>6am - 9pm</u>	<u>9pm - 6am</u>
1989	12	3
1990	7	0
1991	5	1

Robbery

1989	1	0
1990	3	1
1991	1	0

Breaking & Entering

1989	4	2
1990	4	1
1991	8	2

Potters Avenue #20-188

Larceny

	<u>6am - 9pm</u>	<u>9pm - 6am</u>
1989	0	1
1990	2	1
1991	0	1

Robbery

1989	0	0
1990	0	1
1991	0	0

Breaking & Entering

1989	4	2
1990	1	1
1991	6	1

Source: Prov. Police Dept. Offense Listing 1989-91

BIBLIOGRAPHY

- Alexander, Theron. 1973. Human development in an urban age. NJ: Prentice-Hall.
- Asner, Eve. 1967. Vest pocket parks in Philadelphia. Planning 1967: Selected papers from the ASPO National Planning Conference, Houston, Texas April 1-6, 1967. Chicago: American Society of Planning Officials.
- Banerjee, Tridib and William C. Baer. 1984. Beyond the neighborhood unit: Residential environments and public policy. NY: Plenum Press.
- Bartelt, David, David Elesh, Ira Goldstein, George Leon, and William Yancey. 1987. Islands in the stream: Neighborhoods and the political economy of the city. In Neighborhood and community environments, eds. Irwin Altman and Abraham Wandersman. NY: Plenum Press.
- Bassow, Monty, Southside Community Land Trust. 1992. Telephone interview. Providence, RI. July 10, 16.
- Beyer, Glenn H. 1965. Housing and society. NY: Macmillan.
- Boston Urban Gardeners. At the community farm. Boston Urban Gardeners Newsletter II (Issue II, Winter 1991-92).
- Carvajal, Doreen. 1989. New growth and new hope. Philadelphia Inquirer, Metro, September 27.
- Campinini, John, City Forestry Dept. 1992. Telephone interview. Providence, RI. February 20.
- Casala, Peter, Dept. of Inspection and Standards. 1992. Telephone interview. Providence, RI. March 31.
- Coe, Mary Lee. 1978. Growing with community gardening. Taftsville, VT: Countryman Press.
- Cohn, Roger. 1991. Calabaza pumpkins are growing in the Bronx! Audubon (July-August): 77-88.
- Council on the Environment of New York City. 1990. Annual Report. NY: Office of the Mayor.
- Fischer, Claude S. 1976. The urban experience. NY: Harcourt Brace Jovanovich.

- Fisher, Kathleen. 1990. People love plants and plants heal people. American Horticulturist 69, 10 (October): 11-15.
- Fried, Marc and Peggy Gleicher. 1970. Some sources of residential satisfaction in an urban slum. In Neighborhood, city and metropolis: An integrated reader in urban sociology, eds. Robert Gutman and David Popenoe, 730-745. NY: Random House.
- Green Guerillas. 1990. Green Guerillas Fact Sheet. New York.
- Greenberg, Stephanie W. and William M. Rohe. 1984. Neighborhood design and crime: A test of two perspectives. Journal of the American Planning Association 50, 1 (Winter): 48-61.
- Herbert, David. 1973. Urban geography: A social perspective. NY: Praeger.
- Hester, Randolph T., Jr. 1975. Neighborhood space. Community Development Series, Volume 17. Stroudsburg, PA: Dowden, Hutchinson and Russ.
- Hunter, Albert. 1983. The urban neighborhood: Its analytical and social contexts. In Neighborhood policy and planning, eds. Philip L. Clay and Robert M. Hollister, 3-20. Lexington, MA: Lexington Books.
- Insel, Paul M. and Henry Clay Lindgren. 1978. Too close for comfort: The psychology of crowding. NJ: Prentice-Hall.
- Jacobs, Jane. 1961. The death and life of great American cities. NY: Random House.
- Jobb, Jamie. 1979. The complete book of community gardening. NY: Wm. Morrow.
- Johnson, Dorothy and Rick Bonlender. Creating community gardens. St. Paul, MN: Minnesota State Horticultural Society.
- Kaplan, Rachel. 1973. Some psychological benefits of gardening. Environment and Behavior 5, 2 (June): 145-162.
- Keller, Suzanne. 1968. The urban neighborhood: A sociological perspective. NY: Random House.

- _____. 1982. The neighborhood. In Neighborhoods in urban America, ed. Ronald H. Bayor. Port Washington, NY: Kennikat Press.
- Kempner, Natalie. 1988. Gardening in public housing. The Green Scene, (May): 19-22.
- Kropat, Edward. 1985. People in cities: The urban environment and its effects. NY: Cambridge University Press.
- Lardner, Marion. 1990. Harold and the Peter Rabbit brigade. American Horticulturist 69, 10 (October): 30-33.
- Lepore, Michael, Department of Planning and Development. 1992. Telephone interview. Providence, RI. April 1.
- Levy, John M. 1988. Contemporary urban planning. NJ: Prentice Hall.
- Lewis, Charles A. 1973. People-plant interaction: A new horticultural perspective. American Horticulturist 52, 2 (Summer): 18-25.
- _____. 1979. Plants and people in the inner city. Planning 45, 3 (March): 10-14.
- _____. 1979. Comment: Healing in the urban environment. Journal of the American Planning Association 45, 3 (July): 330-338.
- Lofland, Lyn H. 1973. A world of strangers: Order and action in urban public space. NY: Basic Books.
- Mann, Peter H. 1970. The neighborhood. In Neighborhood, city and metropolis: An integrated reader in urban sociology, eds. Robert Gutman and David Popenoe. NY: Random House.
- Marietta, Lisa, Southside Community Land Trust. 1992. Personal interview. Providence, RI. March 2.
- Merry, Sally Engle. 1981. Urban danger: Life in a neighborhood of strangers. Philadelphia, PA: Temple University Press.
- Minnesota State Horticultural Society. 1990. Minnesota Green News 2, nos. 1,3,7.
- Morris, David and Karl Hess. 1975. Neighborhood power: The new localism. Boston, MA: Beacon Press.

- Murphy, Rose. 1991. Keeping a good thing going: A history of community gardening in the U.S. In Green-Up Times, Newsletter of the New York Botanical Garden's Bronx Green-Up Program 3 (Summer): 1-2.
- National Association for Gardening. Guide to community garden organization. Shelburne, VT: National Association for Gardening.
- _____. 1978. Spotlight on community gardening 1, 1 (March): 3.
- National Gardening Association. Starting a community garden. Burlington, VT: National Gardening Association.
- New York City Housing Authority, Tenant Gardening Program. The greening of public housing. NY: New York City Housing Authority.
- New York City Department of General Services, Operation GreenThumb. Operation GreenThumb fact sheet. NY: Department of General Services.
- Pennsylvania Horticultural Society, Philadelphia Green Program. 1990. Annual Report, July 1, 1989 - June 30, 1990. Philadelphia, PA: Pennsylvania Horticultural Society.
- Philadelphia Green. 1988. Greene Towne Countrie development guide. Philadelphia, PA: Pennsylvania Horticultural Society.
- Providence, RI, Dept. of Inspections and Standards. Construction and demolition permits. Providence, RI: Department of Inspections and Standards.
- Providence, RI, Dept. of Planning. 1991. Providence special vacant lot program: A redevelopment plan, revised June, 1991. Providence, RI: Department of Planning.
- Providence, RI, Dept. of Police, Special Projects Division. Providence Police Department Offense Listing. Providence, RI: Providence Police Department.
- Providence, RI, Dept. of Public Parks. Providence Street Tree Program fact sheet. Providence, RI: Department of Public Parks.
- Rainwater, Lee. 1973. Fear and the house-as-haven in the lower class. In Urbanman: The psychology of urban survival, eds. John Helmer and Neil A. Eddington, 92-106. NY: Collier-Macmillan.

- Rivlin, Leanne G. 1987. The neighborhood, personal identity and group affiliations. In Neighborhood and community environments, eds. Irwin Altman and Abraham Wandersman, 3-34. NY: Plenum Press.
- Roach, Margaret. 1991. Scenery and solace can be found in the city's 700 community gardens. New York Newsday, July 11.
- Southside Community Land Trust. Southside Community Land Trust fact sheets. Providence, RI: Southside Community Land Trust.
- Steiner, Richard L. 1967. Baltimore's experience in the Harlem Park urban renewal project. In Planning 1967: Selected Papers from the ASPO National Planning Conference, Houston, Texas, April 1-6, 1967.
- Suttles, Gerald D. 1972. The social construction of communities. Chicago: University of Chicago Press.
- U.S. Department of the Interior. Bureau of Outdoor Recreation. 1975. Community gardens bloom on recreation scene, by James G. Watt. In Outdoor recreation action, Report No. 36. (Summer): 1-11. Washington, DC: U.S. Government Printing Office.
- U.S. Department of the Interior. Department of Housing and Urban Development. 1978. Restoring the sense of community, by Bernie Jones. In The President's 1978 national urban policy report, 75-76. Washington, DC: U.S. Government Printing Office.
- U.S. Department of the Interior. Department of Housing and Urban Development. 1979. The behavioral foundations of neighborhood change. Washington, DC: U.S. Government Printing Office.
- Urgo, Lesley Dretar, Mary Elizabeth Sharpe Street Tree Endowment. 1992. Telephone interview. Providence, RI. July 10.
- Varady, David P. 1986. Neighborhood upgrading: A realistic assessment. Albany, NY: State University of New York Press.
- Webber, Melvin M. and Carolyn C. Webber. 1967. Culture, territoriality, and the elastic mile. In Taming megalopolis: What is and what could be, Vol. 1, ed., H. Wentworth Eldredge, 35-53. NY: Praeger.
- Webster's New Universal Unabridged Dictionary, deluxe 2d ed., (1979), s.v. larceny, robbery.

Yancey, William L. 1973. Architecture, interaction and social control: The case of a large-scale public housing project. In Urbanman: The psychology of urban survival, eds. John Helmer and Neil A. Eddington, 107-121. NY: Collier-Macmillan.