

**PRESERVATION OF A DESIGNED HISTORIC LANDSCAPE:
THORNDEN PARK
SYRACUSE, NEW YORK**

by

Constance E. Zipperer

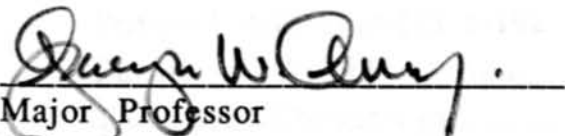
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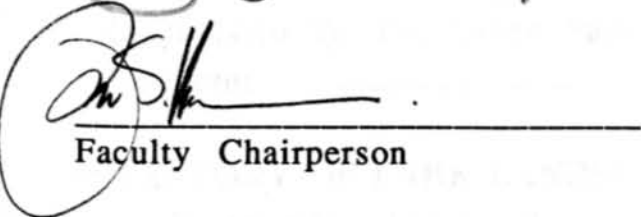
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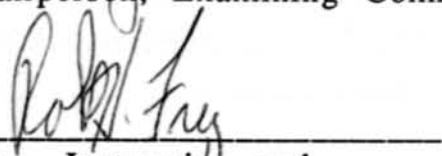

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ABSTRACT

Zipperer, Constance E. Preservation Of A Designed Historic Landscape: Thornden Park Syracuse, New York. Type and bound Master of Landscape Architecture. 157 pages and 46 figures. December, 1991.

The objectives of this master's project were to continue the preservation planning process for Thornden Park that had been initiated by the City of Syracuse Department of Community Development and the Landmark Preservation Board. The historic context of the American Urban Park Movement and the relationship to Thornden Park significance was identified with documented information about the planning and design of the park landscape. The significance and a thorough inventory of park features were carried out to assess the integrity of the current park landscape. This body of information and current uses influenced preservation guidelines for the future planning and treatment of a historic community resource.

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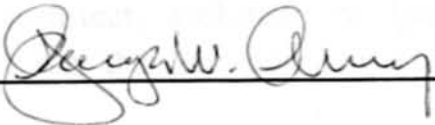
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INTRODUCTION

Preservation Of A Designed Historic Landscape-Urban Park

The parks built in American cities during the nineteenth century are important historic urban components. During the nineteenth century, parks were designed with a well-defined objective that 'good environments' produced 'good citizens'. Parks were a place for all citizens to escape from the overcrowding and polluted conditions of the city. These picturesque landscapes provided passive and active forms of recreation. Current city dwellers, just as people of the nineteenth century, use parks as an escape from stresses associated with urban life styles. The picturesque landscape features of parks have aesthetic values associated with nature. Recreational activity promotes a wholesome outside experience. Local citizens recognize the benefits of this urban land use and are concerned about the deteriorated condition of parks. Communities are interested in the history of designed park landscapes and are working with government agencies and design professionals in preserving the landscape character and various forms of recreational opportunities.

A foundation for communities to preserve urban park character and cultural heritage has been established over twenty years of preservation accomplishments at federal, state, and local levels (Appendix A). The urban park is one type of community resource within a broader category of designed historic landscapes identified by the U.S. Department of the Interior, National Park Service. A designed historic landscape is a landscape where designer, form, layout and other design elements are the primary reasons for significance. This type of landscape has significance as a design or work of art under one of the following conditions:(1)

A master gardener, landscape architect, architect, or horticulturalist consciously designed and laid out the landscape to a design principle.

An owner or other amateur used a recognized style or tradition in the landscape.

There is a historical association with a significant person, trend, event, etc. in landscape gardening or landscape architecture; or a

significant relationship to the theory or practice of landscape architecture.

Landscape architects such as Frederick Law Olmsted designed many urban parks in response to the needs of American communities. Likewise, in preserving these historic urban parks, contemporary landscape architects working with communities must understand the the economic, political, social, and environmental needs that determined the original design of the park and the contemporary forces influencing them today. The original artful composition of historic urban parks are weakened by never ending proposals for new uses, roads, restaurants, and recreational facilities. These additions may disrupt the original design plan. However, aspects of the artful design have the potential to be preserved through careful planning for contemporary needs and treatment of the landscape.

Preservation and management of historic parks for future use requires a planning/design process which incorporates the history of the landscape and contemporary needs. Designers can intertwine the past and present to shape the future of this type of designed historic landscape. Various planning approaches to historic landscape preservation are applied in order to render parks a continued source of recreation and landscape beauty for the future.

Planning Approaches To Urban Park Preservation

In 1982, a three year planning study for Central Park, New York City, was initiated by a team of park managers/staff and interdisciplinary consultants to address the preservation and future management of the park.(2) The planning process studied change and continuity of natural features, mechanical systems, circulation, architecture, use, management, and security of the park. These numerous park features were analyzed in relationship to use and maintenance in order to identify park problems.

Recommendations were made for problems identified at general and specific park levels. Principles that guided the solutions included the historic character of the original Greensward Plan, protection/preservation of the park from outside intrusions and abusive uses, public

safety/enjoyment, cleanliness/structural soundness, horticultural beauty/ecological condition, and functional/structural integrity. A set of criteria with numerical values determined park priority areas for restoration.

The criteria used for evaluation of park priority areas included the aesthetic, functional, and historic appropriateness; the public needs which were interpreted from user surveys, location within the park, existing conditions, management and funding. The planning process produced a comprehensive study of Central Park that resulted in a management and 'restoration' plan for the future.

The Olmsted Historic Landscape Preservation Program administered by the Massachusetts Department of Environmental Management and local communities conducted a similar project for the Emerald Necklace Park System, Boston, Massachusetts in 1988.(3) The planning process involved a compilation of historic information, existing inventory of the park's physical conditions, contemporary uses and management/maintenance practices. This information was analyzed to identify changes in the original Olmsted design plans. The historic function and appearance, current physical condition, contemporary needs of users, and management/maintenance practices were synthesized and three distinct levels of preservation action were identified in order to balance the historic preservation of the system with contemporary community needs and management. These levels of preservation action include the following:(4)

Historical 'Restoration'-the attempt to recreate as accurately as possible the original design intent, requiring close adherence to period style, materials, vegetation and construction.

Sympathetic 'Restoration'-the action of working "in the spirit of the original design" to recreate the scenic effects of the original, using newer materials, plants, and construction.

Adaptive 'Restoration'-renovating a park feature that is radically changed from the original design, intent, use, or appearance.

Recommendations were made for the system-wide and individual park areas. The final document was a master plan for the Emerald Necklace.

In both, Central Park and the Emerald Necklace, a set of logical and rational steps were implemented into a planning process for the preservation and future management of a designed historic landscape. Sound judgements in community planning of other nineteenth century urban parks can also be guided by the activities of identification, evaluation, registration, and treatment established by the U.S. Department of the Interior, National Park Service.

Preservation planning activities are initiated by defining a general theme or body of information which describes one or more important aspects of the historic development of a community, relating to history, architecture, archeology, engineering, and culture.(5) This framework is the historic context from which properties in the community are then identified through archival research, interviews, and surveys to determine eligibility for listing in the National Register of Historic Places. For example, the historic context of the Urban Park Movement in America establishes a relationship between local resources and local park planning in a community. In addition, the historic context aids in the identification of urban parks eligible for further preservation planning activities.

The evaluation activity applies criteria for significance and qualities of integrity to the representative properties within the defined historic context. A property must meet one or more of the four specific criteria which characterize, illustrate, reveal, or recall specific persons, events, patterns of development or design types recognized by the public or the professional and scientific community as important in the understanding of our nation's history.(6) Integrity is the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic period. Qualities of integrity include location, design, setting, materials, workmanship, feeling, and association.(7) The evaluation activity results in an inventory of significant properties having integrity, that is consulted in assigning registration and treatment priorities.

Registration is the formal recognition of significant properties in accordance with the National Register requirements. The application of this activity is a program that includes a professional staff to prepare and assess the documentation of significance for a historic property. An impartial professional group further evaluates the documentation. A public notice is distributed to interested groups regarding the proposed registration and effects of registration. The public has the opportunity to participate and appeal decisions regarding a historic property. Registration results in an official list of properties offering honorable recognition and various levels of consideration when alteration of properties is proposed.

Treatment is the method of physical intervention applied to a significant property listed in the National Register of Historic Places. The application of specific standards guides or manages seven possible types of treatments including acquisition, protection, stabilization, preservation, rehabilitation, restoration, and reconstruction.(8) These activities (identification, evaluation, registration, and treatment) form an important basis for planning decisions that affect the quality of designed historic landscapes and other historic resources in a community.

Syracuse Historic Landscape Resources

The local designation of Upper Onondaga Park under the Syracuse Landmark Preservation Ordinance, launched the landscape preservation planning efforts for the city of Syracuse, New York. In the summer of 1988, the City of Syracuse Department of Community Development and the Landmark Preservation Board in conjunction with Walmsley & Company, Inc. embarked on the identification activity for historic landscape resources in the city. "The Syracuse Historic Landscape Survey" identifies and assesses the significance of twelve sites for local designation.(9) Thornden Park, one of the twelve sites, was awarded local designation as a protected site on November 14, 1989 by the City of Syracuse Planning Commission.

Objectives Of The Master's Project

The objectives of this master's project are to continue the preservation planning process for Thornden Park. The relationship

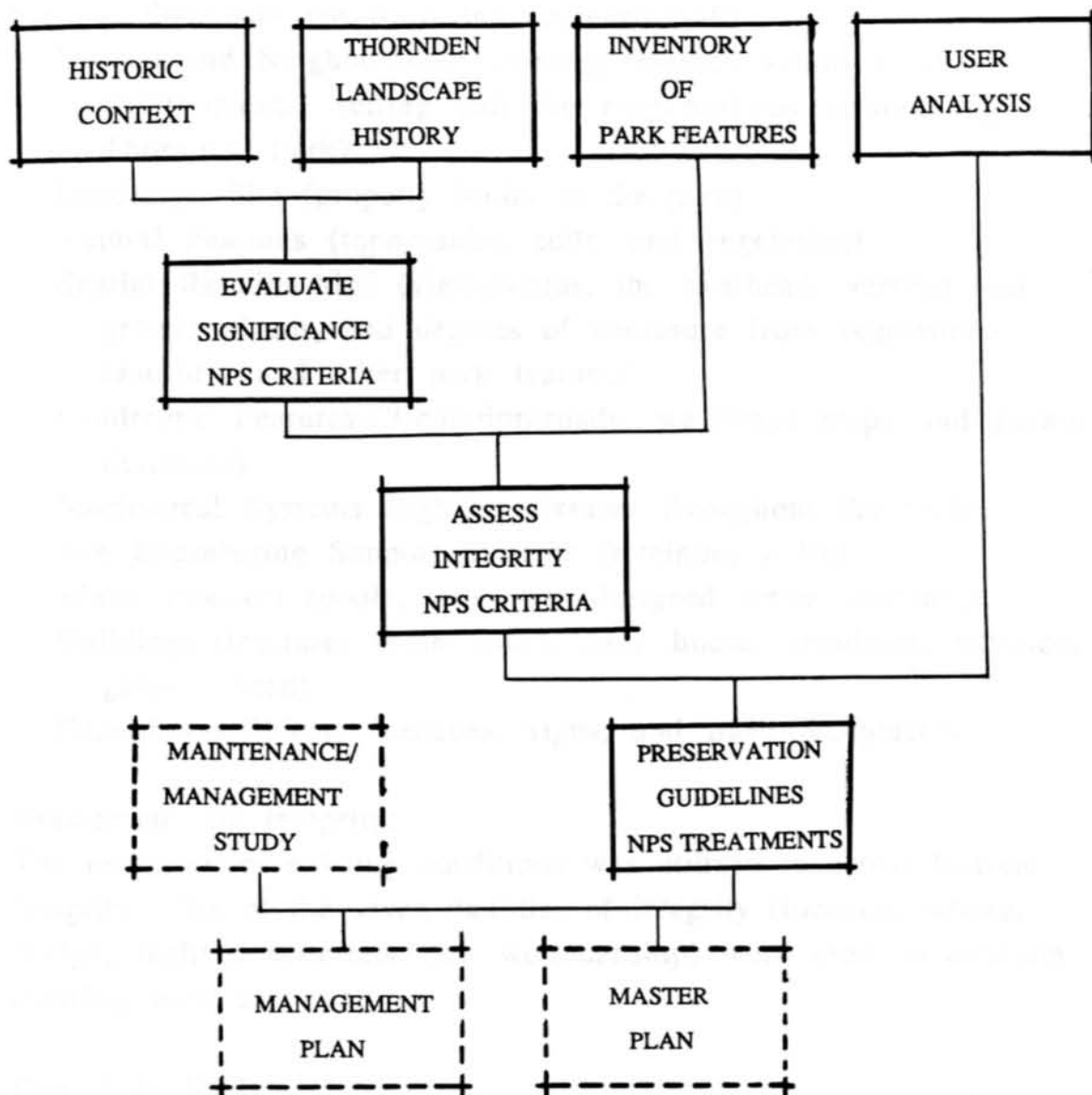
between the American Urban Park Movement and Thornden Park significance needs to be identified with documented information about the planning and design of the park landscape. The significance and a thorough inventory of park features must be carried out to assess the integrity of the current park landscape. This body of information and current uses can then influence preservation guidelines for the future planning and treatment of a valuable historic community park.

Methodology For Master's Project

The process (Figure I-1) utilized for this master's project is a modification of steps used in other park preservation projects and guidelines/criteria established by the Secretary of the Interior, National Park Service. The historic context establishes the relationship of the Syracuse Park Movement/Thornden Park to the Urban Park Movement in America. The historic context and a compilation of Thornden landscape history identifies significance. An inventory of existing park features and the significance of Thornden Park were assessed for integrity using National Park Service criteria. A park user study was conducted to identify images and preferences related to park issues facing Thornden. The user analysis and synthesized information determined preservation guidelines for Thornden Park.

Thornden Landscape History:

An intensive historic account of Thornden Park disclosed the original circumstances and influences that lead to the park's origin and its original design. Park elements include circulation, sequencing of spatial experiences, views and vistas, and vegetation. These elements were designed in such a way as to reinforce singularly and collectively the desired park effect. Archival research into books, maps, newspaper articles, and other pertinent reference materials traced the series of events which gave form to the park. A landscape time line, written descriptions, maps and photos document this information.



NPS - National Park Service

Future Study Needs

Master's Project

Figure I-1. Preservation Process For Master's Project

Inventory Of Park Features:

Existing conditions were surveyed by site studies, photos, and reference materials. Written descriptions, photos, and maps were used to document the following categories:(10)

- District and Neighborhood (existing features within a greater environmental setting and the neighborhood surrounding Thornden Park)
- Landscape Site (property limits of the park)
- Natural Features (topography, soils, and vegetation)
- Spatial Relationships (views/vistas, the overhead, vertical and ground planes, and degrees of enclosure from vegetation, landform and other park features)
- Landscape Features-Circulation(roads, walkways steps and parking facilities)
- Mechanical Systems (lighting fixtures throughout the park)
- Site Engineering Support Systems (retaining walls)
- Water Features (pools, lakes and designed water elements)
- Buildings/Structures (bath house, field house, standpipe, pavilion, garage, shed)
- Furnishings/Objects (benches, signs, and trash receptacles)

Assessment Of Integrity:

The inventory of existing conditions was utilized to assess historic integrity. Six of the seven qualities of integrity (location, setting, design, feeling, materials, and workmanship) were used to evaluate existing park features.

Park User Study:

An identification of user groups and how they perceive the park is essential in a preservation planning process. The employment of a current user analysis defined user preferences for recreation, landscape, and other park issues. This information assisted in determining preservation guidelines.

Preservation Guidelines:

The preservation guidelines outline treatments for the park and specific park features.

The preservation process for Thornden Park was composed of a set of logical and rational steps. Professional Landscape Architecture approaches were used for landscape analysis. The National Park Service criteria for significance and integrity employed in the evaluation steps maintained a historic preservation perspective for future planning of the designed historic landscape and valuable community resource. A comprehension of the Urban Park Movement in America provided the foundation for park planning and design that related to the development of parks in Syracuse, New York.

Footnotes

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2. Central Park Conservancy. 1985. "Rebuilding Central Park: A Management And Restoration Plan." 6-7pp.
3. Massachusetts Department of Environmental Management. 1988. "Emerald Necklace Parks Master Plan". 4p.
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5. U.S. Department of the Interior, National Park Service. 1983. "Federal Register." Volume 48 No. 190. 44718p.
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HISTORIC CONTEXT

The history of the Urban Park Movement in America identifies the development of park planning and design. Location, size, shape, and features of the park landscape were influenced, in part by community factors. The Pleasure Ground (1850-1900), the Reform Park (1900-1930), the Recreation Facility (1930-1965), and Open Space (1965-present) are four park design periods shaped by social, economic, and political conditions.⁽¹⁾ An understanding of each period reveals the types of parks that exist in today's American cities.

The Urban Park Movement In America

In the mid-nineteenth century, towns and cities in America were growing in size and population at a rapid rate. Jobs formed by industrial and technological innovations prompted immigration to American cities and exodus from the rural countryside. As the population in cities increased so did problems of pollution, diseases, and crowding.

In 1845, large American cities were difficult places to live. Slaughterhouses disposed of carcasses into the streets, noxious chemical from burning coal polluted the air, and particulate matter from incineration of refuse settled throughout the urban environment. Crowding became a problem. Cities became so built-up that there was little open space for people and anti-urban feelings started to emerge.

In New York City, people wanted more green spaces. Park advocates, such as William Cullen Bryant and Andrew Jackson Downing, viewed green expanses as a way of alleviating the problems of the city. Their ideals were based on the English romanticism for nature and on the writings of Emerson and Thoreau. Park advocates thought nature, with its broadly rolling, gently sloping landscapes dotted with clumps of trees and sensuously contoured water bodies, could be duplicated in the city.

By 1848, park advocates campaigned for a park in New York City - an informal park landscape similar to the English romantic style. Through their work, the proposed park became a political issue. After much debate about the location of this park, land was acquired in 1856. One year later

a design competition was initiated by the city. The new park was meant to be a piece of the country with fresh air, meadows, lakes, and sunshine in the city. The Park Commissioner's official description:

"...the primary purpose of the park is to provide the best practical means of healthful recreation for the inhabitants of all classes. It is the one great purpose of the park to supply to the hundreds of thousands of tired workers, who have no opportunity to spend their summers in the country, a specimen of God's handiwork that shall be to them, inexpensively what a month or two in the White Mountains or the Adirondacks is at great cost to those in easier circumstances."
(2)

The unfortunate death of Downing lead his associate Calvert Vaux to seek another partner for the design competition of this new park. Frederick Law Olmsted, superintendent of the site, also was influenced by the English informal landscape style and agreed to collaborate with Vaux on the design. Their design for the park contained 830 acres of open meadows and lawns, existing natural features, and a range of rural scenery with a border of native plant material surrounding the perimeter. The Greensward Plan for Central Park designed by Olmsted and Vaux won the design competition and was implemented by 1865.

The foundation of the late nineteenth century Urban Park Movement was based on romantic ideals of nature's curative powers and its ability to restore within the city something that was vital. The natural character of parks countered the chaos of urban life and developed pride in civic growth, wealth, and culture. Parks were the lungs of the city and a sign of good health. An urban consciousness and a more cosmopolitan view emerged of the city.(3)

Pleasure Ground (1850-1900)

Central Park set a precedence for park planning and design based on definite aesthetic and functional premises.(Fig. HC-1a,b) It was the first deliberately planned and designed urban park in America and as such the forerunner to the Urban Park Movement. The pastoral middle landscape had an overall composition of smoothness, harmony, serenity, and order



Separation Of Traffic



Architecture Integrated In Landscape



Strong Contrast to City



Victorian Influence



Balance Between Spatial Elements



Designed For Recreation

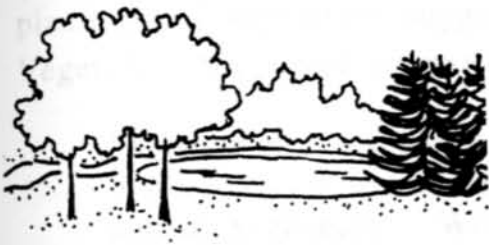


Vistas Focused Attention

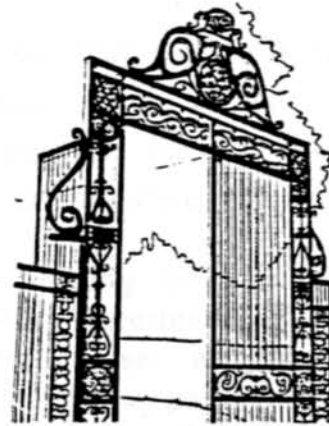


Artistic Composed Plantings

Figure HC-1a Aesthetic and functional design characteristics of parks (Kelly)



English Romantic Style



Formal Elements For Transition



Visitor Services



Variety



Bold Landforms



Manmade Work Of Art



Planned Sequential Experiences

with an occasional reminder of a wilderness feature.(4) Woods of native tree species were preferred because of their sylvan effect. Irregular plantings of vegetation suggested the feeling and idea of distance. Vegetation was used primarily to form and modulate space:

"Masses of trees formed long vistas leading the eye into imaginary distances and to create the kinesthetic experience of moving through spatial sequences. Woods opened and closed around meadows, beckoning strollers forward through narrow passages, intended to pique their curiosity about what was on the other side. Mowed grass was basic in the park."(5)

The rural setting of the landscape provided both semi-active and passive forms of recreation. People spent an entire day in the park, picnicking with friends and family, reading books, watching the birds and squirrels, listening to music, playing croquet, boating and strolling. Such activities in the park required drinking fountains, benches, and other support features.

Separation of traffic modes was one of the more distinctive features in the park. Vehicles and pedestrians had different drives and walkways. Sometimes roads were sunken at points of intersections so that one kind of road could be carried over another without visual or physical disturbance. The park was meant to be a work of art and at the same time a strong contrast to the rectilinear pattern and monotonous streets, noise, and pollution of the city.

By 1900, the landscape layout and the use of parks were of equal interest.(6) Community pressures for additional uses like zoological gardens and museums infringed upon the park landscape. The picturesque design form persisted into the Reform Park period but gradually changed in appearance.

Reform Park (1900-1930)

Park design was influenced by changes in recreational attitudes. Leisure time no longer meant a stroll in the park or a picnic; it now

referred to free time. This free time was related to shorter work weeks, longer vacations, and earlier retirement. Park reformers felt that organized sports and increased recreational services would dispense of idle time and the threat they perceived, it posed to society.

Organized recreation became the focus of park programming. Trained leaders instructed play for the physical and social development of the community. Children became an important focus of park planning. Playgrounds were organized with a recreation plan and places for children to play rather than in the streets. This form of play activity was broadened to include activities for other age groups. The Reform Park period expanded the range of programmed activities into physical, social, aesthetic, and civic areas of interest.

Park programming divided recreation into active categories engaging in physical activities and the traditional passive categories. The pleasure ground parks were no longer viewed as merely a place for relaxation but a place for activities organized by trained people. Recreational facilities intruded on the beauty of the surrounding landscape. Football fields and swimming pools were laid over meadows. Spatial sequences within areas of the park were being interrupted by active recreational facilities. The illusions of more space, so carefully designed with trees and meadows, were distorted and meandering serpentine paths were straightened. Natural features were replaced with massive buildings and hard flat surfaces. Physical activities replaced the experience of quiet serenity and water features within the Picturesque landscape. The genus of the place was markedly different in the reform parks.

By 1922, a newly built reform park (Fig. HC-2) consisted of at least 10 acres, and at most 40 acres, and was divided into both an indoor and outdoor area surrounded by shrubs.(7) The indoor was a massive structure known as a field house which accommodated a stage, coat room, club room, refectory, indoor gym, branch of a public library, separate locker rooms, and lavatory. The outdoor area consisted of two fields for organized games, running tracks, sandpits, swimming/wading pools, and playgrounds. A typical park layout had a field house flanked by

playgrounds with a formal axis leading to the playing fields. Paths and roadways were minimized to save space for games. The pedestrian was given a feeling of formality. Between 1900-1930, the primary goal of the park was the utility of the landscape. During this period, park designers shifted from artistry, as a design priority, to utility of programmable activities. This new thinking abandoned earlier park ideology which designed for unstructured recreational experiences for the entire family.

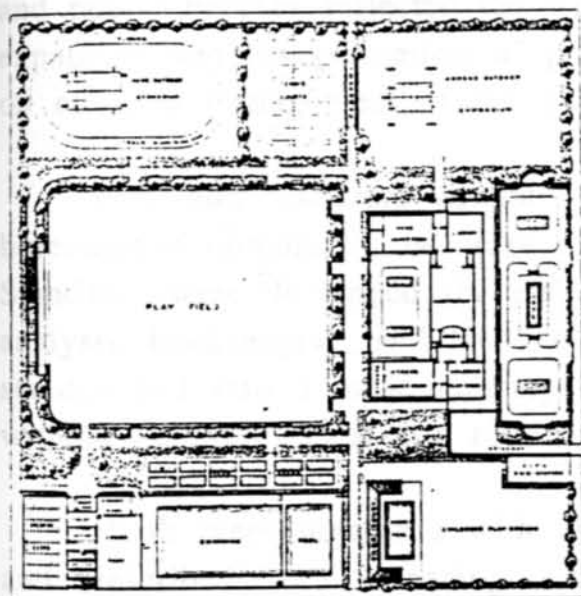


Figure HC-2 Reform Park Plan (Cranz)

In addition, the City Beautiful movement (1893-1920) influenced parks and other sections of the city. This movement was a beautification campaign to improve unattractive urban areas. American parks were decorated with flowers, shrubs, and trees as a way of combining landscape aesthetics with recreation facilities for a diverse range of park features. The park symbolized an important element of civic design.

By 1930, parks had become an accepted component of the city. Park departments developed comprehensive master plans which linked parks to parkways that formed systems throughout the city. Recreational facilities

were included in the system to accommodate the increased demand for recreation.

Recreation Facility (1930-1965)

A growing population, the Depression, and World War II influenced park programming during this period. Park services responded to the needs of the community for more recreational activities and social programs. Large celebrations such as athletic tournaments, festivals, and annual events, were organized to develop community interaction and cohesion. The increased number of playgrounds, stadiums, parking lots and public beaches reflected the recreation philosophy for this period. The expansion and diversification of programmed activities led to an emphasis on efficient management of the park system.

Park administrators adopted a procedural sophistication and bureaucratic complexity in order to maintain the numerous facilities. Standards were developed for the recruitment and training of staff, data analysis, bookkeeping, and landscape. The design of the park became standardized into a basic municipal package that was used repeatedly, without regard to local site conditions.

Parks were organized with cyclone fencing, specified park benches, and prescribed trees. Fencing demarcated land uses and substituted for supervision. Manufactured benches were easy to install and maintain. Park signage identified boundaries, paths, and general park guidelines. Circulation details were reduced to asphalt paving and curbing. During this period, hard surfaces, usually black top, were favored for the multiple uses associated with the facilities and to reduce maintenance cost. The physical form of the multiple-use facility was a mix of minimal standards of appearance and the economy of maintenance. By 1962, landscape architect, Garrett Eckbo described park design of this period:

"...American park design as more limited, conventional, stereotyped, repetitive, and resistant to innovation in form than any other area of design."(8)

In the 1960's, people were moving into suburbs and massive cuts in city budgets lead to an urban crisis. Parks were deteriorating and perceived as unsafe. In response, park administrators no longer emphasized the facilities but promoted recreational experiences in open spaces throughout the city.

Open Space (1966-present)

Public open spaces in the city had the potential for recreational experiences. The open space concept encompassed park landscapes, plazas, and city streets. These areas were programmed with a broad range of recreational opportunities for public involvement. Rock concerts, rallies, environmental awareness programs, and city-wide parties stimulated public participation and a renewed fascination with parks.

New sports such as motorcross and trampoline were introduced and other traditional activities reemphasized. Physical fitness was stressed through instruction and outdoor fitness courses. Cultural activities that included artistic expression for people of all ages were participatory and resulted in a recreation experience.

Most American cities have examples of parks from all park eras. Early Pleasure Ground parks have been layered with the design and recreational opportunities represented in later park types. Recreational facilities and public open spaces exist throughout the urban fabric. Syracuse, New York is one American city that reflects the national trends of the American Park Movement in the development of park landscapes and recreation.

Syracuse Park Movement

Pleasure Ground (1850-1900)

In 1871 legislation for the city of Syracuse, New York established a commission to guide the process of receiving land donations for future park use.(9) The need for parks was recognized, but there was a considerable amount of discourse as to the type, character, and role of parks. In 1886, Mayor Burnett donated his rural property on the city's west side for park use with the stipulation that \$10,000 a year during a

four year period be spent on improvements. The city accepted the gift and commissioned a landscape gardener to design the park in the Pleasure Ground style with broadly rolling landscape, clumps of trees and water. Burnet Park marked the first significant merger of national design trends with the development of a Syracuse park.(10)

Individual parks, such as Burnet Park, boulevards, and reservoirs were acquired by the city during this period. In 1906, the commission investigated the idea of creating a park system and commissioned George Kessler, a landscape architect, to develop a plan.(11) His proposal, entitled "Onondaga Creek Parkway Plan", created a parkway along Onondaga Creek which connected lower Onondaga Park with Kirk Park and completed the circuit with a boulevard extending up the hill to upper Onondaga Park. Only portions of his proposed system were developed. The idea of a park system persisted, but was never fully implemented. Many of Syracuse's parks developed between 1900-1930 incorporated the Pleasure Ground and/or the Reform Park design.

Reform Park (1900-1930)

Syracuse's first playground was established in Frazer Park circa 1909. By 1918, playgrounds were considered essential elements in all the city's parks. Playgrounds and other active recreation elements were inserted into older pleasure grounds. Women clubs throughout the city spoke out in favor of public playgrounds for children:

"More playgrounds will lessen anarchists' ranks and children will be better citizens."(12)

In the spring of 1917, the New York state legislature passed an act creating the Department of Parks for the city of Syracuse. This act established an executive branch of the city government to maintain, preserve, and beautify city parks; to preserve and plant street trees; to provide and equip adequate playgrounds; preserve and maintain all public monuments and fountains.(13)

In the 1920's improvements were made in the existing parks, such as a community house in Kirk park, dance pavillon and golf club house in Burnet park, a new pool in Lincoln park and a rose garden in Thornden park.(14) The city acquired White Oak Swamp ,which became the municipal bath. Old swimming holes throughout the city were replaced by supervised municipal pools. A new playground democracy offered equality, opportunity, and teamwork training.

By the end of this period, Syracuse maintained 75 parks and 16 playgrounds located throughout the city. These recreational areas benefited from the public work programs of the 1930's. Physical improvements, such as stairs, field houses, pavillons, picnic areas, bridges, roads, and walls, addressed the recreation philosophy of the period and resulted in features which exhibited a high level of masonry skills.

Recreation Facility (1930-1965)

The Department of Parks maintained swimming pools in nine parks, numerous playgrounds, tennis courts, baseball diamonds, golf courses, archery courts, and picnic areas by 1940. Landscape features included groves of trees, lily ponds, cascades, rustic walks, expansive lawns, and noted gardens. Other recreation facilities included a zoo and a municipal stadium seating 7,000.(15)

Open Space (1965-present)

In the late 1960's, Syracuse experienced the urban crisis which affected many American cities. Budget problems and the exodus of families to the suburbs left the city struggling to maintain community services. The parks were showing signs of budget cutbacks: floral displays in the gardens were simplified or removed, cultural practices for trees and shrubs were minimized, and vegetation became overgrown. Reduced use, deteriorated landscape conditions, and bad publicity fostered a perception among residents that the city parks were unsafe.

The Department of Parks and Recreation along with neighborhood groups held community events in the parks in an effort to change park image. Large open areas of the landscape hosted concerts, festivals, and

seasonal celebrations. Overgrown vegetation was cleared, lighting was improved, and park patrols increased security. Once again, people began using the parks to jog, bicycle, and enjoy outings with family/friends without having to travel a great distance from their homes. This renewed interest in community parks prompted the formation of neighborhood groups (e.g. Onondaga and Thornden Park Associations) which worked with the Department of Parks and Recreation to further improve conditions in the parks.

An understanding of the Urban Park Movement in America establishes a relationship of the planning and design of parks in Syracuse, New York to national trends. The Pleasure Ground park landscape was epitomized in individual city parks that served different sections of Syracuse. Organized recreation at playgrounds around the city and in parks reflected the Reform Park ideology. The number and kinds of facilities built for the community follows the thinking of the Recreational Facility period. The Open Space concept is evident in the type of events promoted by the Parks and Recreation Department. The history of Thornden Park identifies the landscape as an associated property type within the larger historic context of the American Urban Park Movement and aids in determining its significance as a local historic resource.

Footnotes

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SIGNIFICANCE

An investigation of the Thornden Park history aids in determining the significance of the park landscape. The design, uses, appearance, function of the landscape and individuals or groups associated with its ownership, were identified from newspaper articles, maps, personal accounts, photos and documents. From this information, Thornden Park has been established as a representative of a park landscape that possess characteristic features of planning and design within the Urban Park Movement.

Thornden Park Landscape History

The name Thornden characterizes a landscape setting. The first element *thorn* refers to the "hawthorn-tree"(1) and the second element *denn* suggested by its combination with tree-names is associated with woodlands.(2) Collectively, these two terms form a very common place-name in the English landscape.

During the nineteenth century, rural landscapes of England were large private estates.(3) These predominantly man-made landscapes consisted of a country house surrounded by gardens and lawns. The country house was the main focal point and principal structure on the estate and stood as a visual symbol of wealth and status in the upper class English society. An informal natural landscape composed of wide rolling lawns, still bodies of water, trees in clumps/groves extended beyond the house and the remaining portion of the property was devoted to farmland. This landscape style was evident on the Thornden estate in Syracuse, New York.

Private Estate Years(1875-1921)

Major Alexander Davis, a retired officer from the Civil War, purchased 76 acres of land in the southeast section of the city in 1873 after the death of businessman, J.P. Haskins. For the next 20 years, Major Davis fashioned the property into a traditional English estate. A gate lodge marked the entry to the estate while drives, lined with plantings, wound their way past the country house, greenhouses, barn, and stables.(Fig. S-1)

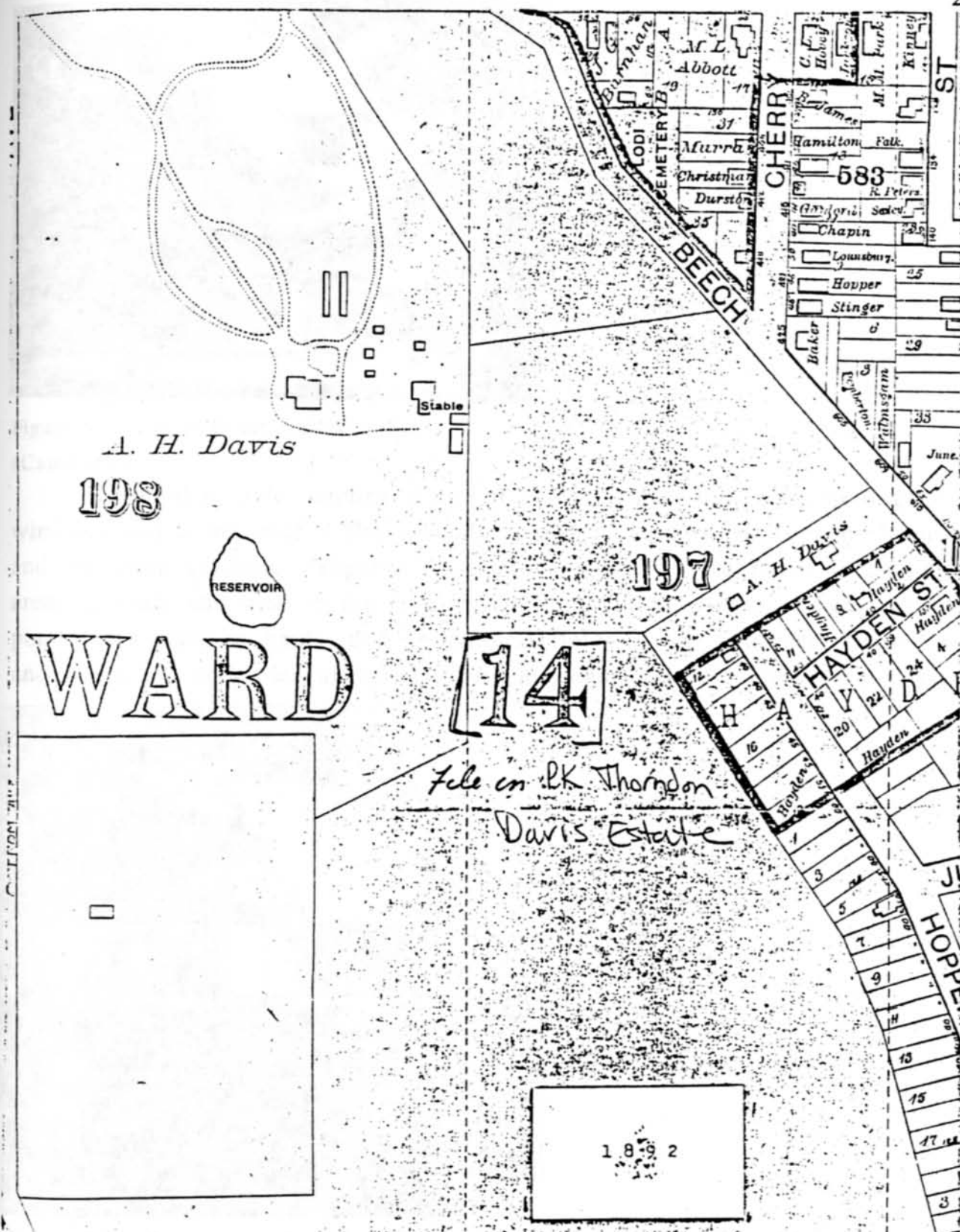


Figure S-1. Thornden Estate (1892). (Onondaga Historical Society). "To visit Thornden is like stepping into some old English estate."(4)

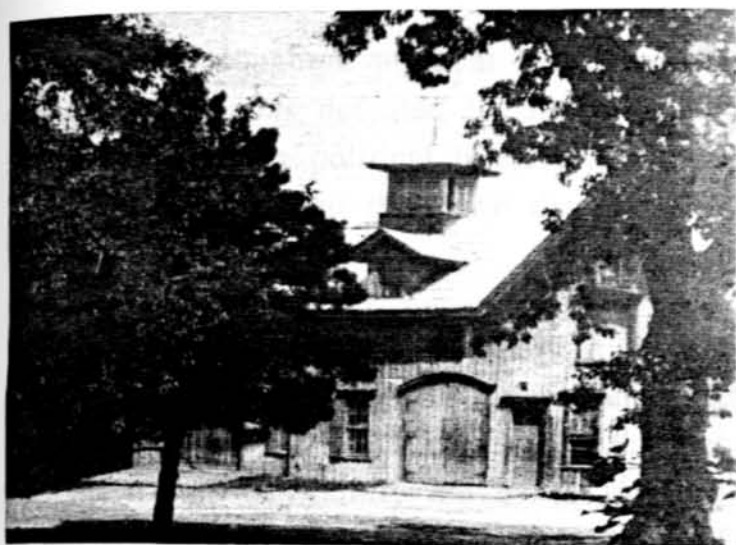


Figure S-2. Davis Estate stables (1875).
(Campbell)

The Gothic style country house of brown stucco had stained/cut glass windows and a tile roof. The grounds around the house consisted of lawns and Victorian gardens. Together with groves of trees, the lawns created areas of mass and void in the landscape. South of the house existed a trout pond, deer park, orchards, and agricultural fields. The Thornden estate and Davis life style was an example of the wealthy social class in Syracuse.

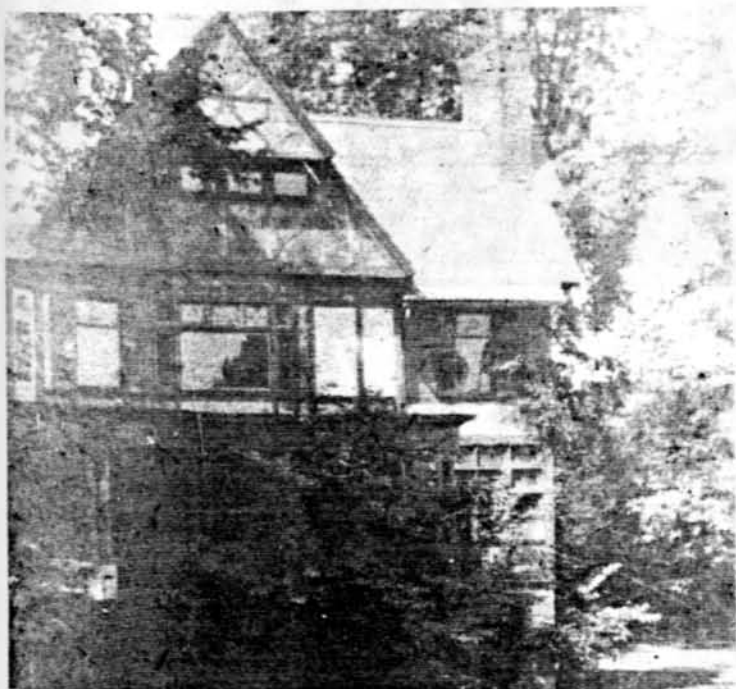


Figure S-3. Davis estate home. (1875).
(Thornden Park Assoc.).

Major Davis sought a political career in 1887 by running for Congress, but was defeated by James Belden. Subsequently, Major Davis pursued his political interest and residence in England. By 1900 Mrs. Davis and their two daughters left Thornden to join Major Davis.

During the Davis residency in Syracuse, their estate gardener, David Campbell, (Figure S-4) established Thornden as a place of exclusive privacy for the Davis family. He continued to manage the property after the family moved to England. Campbell later acquired a ten-year lease on the property from the Davis family while serving as Superintendent of Syracuse City Parks. As superintendent, he played an active role in the future of the estate.



Figure S- 4. David Cambell (Campbell)

During the prominent days of the Thornden estate (1875-1900), the City of Syracuse was growing and expanding. The city annexed 9780 acres and an additional 1743 acres of land was acquired in the southeast section of the city.(5) This section was the most densely populated area that neighbored factories and businesses of the city's lowlands. The streetcar and extending street patterns accessed adjacent neighborhoods of the southeast highlands and Syracuse University.

The upper-class neighborhoods of the southeast highlands and those surrounding the Thornden estate included professors from the university as well as physicians, lawyers, architects and merchants. Neighborhoods to the north and east of Thornden, consisted of middle-class people, with occupations including machinists, painters, carpenters, and policemen. Real estate developers were promoting these highland neighborhoods as the healthiest part of the city. 'Choice lots' and 'beautiful homes' could be found in the neighborhoods surrounding Thornden. (Fig. S-5) By 1912, the real estate developers wanted to purchase the Thornden estate for new home development.



Figure S-5. Syracuse City Directory showing residential lots alongside Thornden estate. (Walmsley)

However, a committee of fifty members from the Chamber of Commerce proposed the estate property become a city park. The committee recognized the need for a "breathing spot" for both the heavily populated lowlands and growing highlands of the southeast section of the city. "It (Thornden) stands a park ready made" argued the committee. The rare and beautiful trees on the estate had been growing for years. The lawns, shrubbery, winding drives and buildings were established and needed little work as compared to developing a barren parcel of land for

future park uses. The committee felt that Thornden represented a beautiful English estate, worthy of becoming a park and a show place in the State of New York.

The advantages of Thornden outlined by the committee reflected common beliefs of park proponents throughout American cities. Park proponents argued that the presence of green spaces could do much to alleviate the problems of city life. They stressed that parks were antidotes to the pressures people felt living in crowded, congested, and polluted conditions:(6)

- 1) The need for a "breathing spot" within an industrial city-
 "It (Thornden) has a wonderful situation upon the brow of a hill overlooking the city and the surrounding country, with rolling meadows, large level spaces, a small lake fed by natural springs, and fine groves of trees. No park in the city has such attractive woodland glades. Although only halfway to the city limits the visitor can imagine himself far away in woods."
- 2) The city should provide space for recreational needs-
 "It offers ideal opportunities for games of all sorts like baseball, tennis, football, golf etc."
- 3) Playgrounds were important for a child's personal and social development-
 "It will afford a playground for the district of Madison and Sumner schools. It is needed now; it will, within a few years, be an absolute necessity."
- 4) The need for facilities to program activities-
 "It has buildings which, with slight repairs, can be used to the best advantage for park purposes-for a pavilion, restrooms, refreshment rooms, museum, zoo etc. With the greenhouses already on the grounds and some additions, the city would have a very fine winter garden which would be enjoyed by thousands of people."
- 5) Educational benefits-
 "It has a unique collection of foreign and native trees. These have been planted in a natural and attractive manner. Were these properly labelled and made accessible, Syracuse would

be unique as the city in the state with a thoroughly equipped arboretum." "Its nearness to the University would benefit the School of Forestry; and the School of Forestry would without question be glad to assume the responsibility in connection with the administration of an arboretum."

The committee of fifty members and the citizenry persisted in its campaign for Thornden Park. On December 13, 1921, the Thornden estate was purchased by the City of Syracuse for \$225,000 from the Davis family.(7)

Public Park(1921-present)

The new Thornden Park combined the pleasure ground design of the estate with the growing enthusiasm for active recreation in American parks typical of the Reform Park era. Local park planners designed a swimming pool, athletic fields, and playground to meet the growing demand for park services. The first feature built (1923) was a swimming pool which consisted of a concrete basin with natural sides, and a spring board. The water was piped in from the Thornden pond(8).

In the next few years, extensive improvements began to shape the estate into a park.(Fig. S-6) Roads extending from the main estate drive at South Beech Street, joined Ackerman Street and University Place. An adjoining road was constructed to wind up the hill on the southeast corner of the park. At the top of the hill, a stand pipe was erected (1924) as an important factor in the city's water system.(9) The steel tank, enclosed in a masonry building, measured 77 feet across and 60 feet high which held 2 million gallons of water. The water was gravity fed from Skaneateles Lake and supplied the surrounding east side neighborhood. The entire southern half of the estate agricultural fields were regraded, seeded, and planted with trees for the park landscape.

In 1927, after requests from the residents of the neighborhood, a concrete swimming pool and bath house were constructed to replace



Figure S-6. Thornden estate transformed into park. (1926). (Onondaga Historical Society).

the existing swimming pool.(10) In addition, a children's playground was built in a wooded section of the park behind the Davis home. A community house for Mothers Club gatherings, Americanization sessions, and other group meetings was agreed upon as a suitable use for the Davis home (1927). Unfortunately after renovations were made the house was destroyed by fire in 1929.

By 1930, the Davis estate trout pond had been drained and converted to an outdoor amphitheater for community vesper services, pageants and band concerts.(Fig. S-7)



Figure S-7. Construction of the amphitheater. (1930) (Thornden Park Association)

During this time, Thornden Park was influenced by the City Beautiful movement. A rose garden with 6,000 rose varieties was planned (1923) by Dr. Edmund M. Mills, a local rosarian and president of the American Rose Society.(Fig. S-8) After the rose garden was constructed, it was pronounced as one of the show places in Syracuse and quoted as 'an inestimable economic, political and social value to the city'.(11) A pavilion was built in the garden (1925) and dedicated to H.S. Holden, J.M. Gilbert and W. Nottingham, three prominent Syracusans.(12) By 1940, a perennial rock garden with a waterfall and pond, a lilac collection and rhododendron plantings enhanced the natural landscape beauty in the park.

The city engineers and park commission coordinated their efforts with the community to further the development of Thornden park.

Members of the faculty from the College of Forestry worked with park officials to establish a pinetum.(13)



Figure S-8. The lower rose garden and Edmund M. Mills Rose Garden with pavillon (1925) (Thornden Park Association)

Native conifers were selected from nearby Labrador Pond and transplanted in the park. Also, non-indigenous trees were planted for educational and aesthetic benefits to the community and students from the College of Forestry and Syracuse University. The rhododendrons along the azalea walkway in the northern section of the park thrived as a result of efforts by Syracuse University students studying the plant's cultural needs.(14) The Syracuse Rose Society maintained over 6,000 bush, tree and climbing roses in the Edmund M. Mills Rose Garden.

The last major building constructed (1933) in the park for community activities and services was a stone fieldhouse measuring 40 feet by 70 feet. The structure contained a concession stand, two dressing rooms with showers, and a large reception room.(15) Trained park staff used the field house for organized play activities and other programs which included music and a summer reading clinic (1949) coordinated with Syracuse University. By 1955, Thornden Park became known as a "Syracuse Beauty Spot" and instilled a sense of pride in the community.(Fig. S-9)

During the 1960's, the Thornden "Beauty Spot" was perceived as an unsafe spot. Landscape amenities and recreational facilities showed signs of neglect and deterioration because of budget cuts that affected maintenance

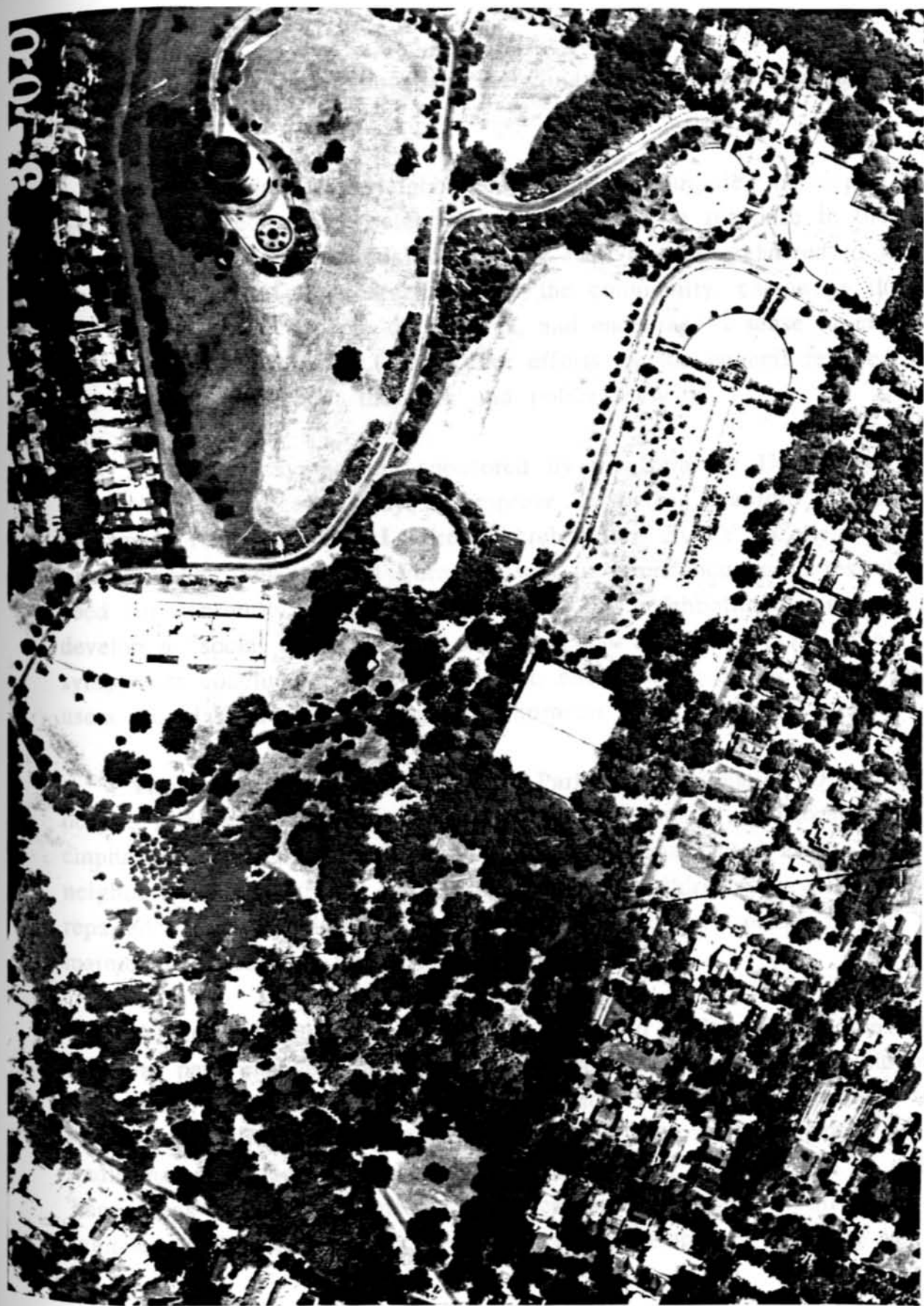


Figure S-9. Thornden Park. (1955). (SUNY-CESF).

practices in the park. Vandalism, muggings, and robbery highlighted newspaper articles.

The Thornden Park Neighborhood Council, composed of local residents, planned a park celebration for the city, in response to the growing concern and altered image. The festival was organized to help create a feeling of togetherness within the community, encourage the use of Thornden by the people of the area, and encourage a sense of citizen responsibility for the park.(16) Other efforts by the council resulted in new lighting throughout the park and police security.

In 1971, a symposium sponsored by the Syracuse University Women's Club suggested ways to improve the park. Bradford G. Sears, Chairman of the School of Landscape Architecture, SUNY - College of Environmental Science and Forestry, was in attendance and stressed the need for continuity of park programs and for neighborhood residents to develop a "social conscience of environmental awareness".(17) The symposium concluded that continual use and a sense of security by park users would improve the image of Thornden Park.

Throughout the 1970's, the City Parks and Recreation Department, despite budgetary cuts, struggled to change the image of Thornden by emphasizing recreational programs. The field house acted as a neighborhood center; the swimming pool and children's playground were repaired. The amphitheater was cleared of overgrown plantings and a maintenance program was established for the park.

A renewed interest in city parks began to surface during the 1980's. The city park changed its image from a recreational facility to public open space with a wide range of possible park activities. The Department of Parks and Recreation emphasized recreational alternatives instead of the traditional park facilities. Recreational experiences in the form of cultural 'happenings' created an atmosphere of festivity for people of all ages. For example, 'Celebrate Together' was an event sponsored by the city in

Thornden Park.(18) The day's activities included live entertainment, games, arts/crafts, and special attractions.

Thornden neighborhood residents viewed the park as valuable open space for walking, jogging, bike riding, and active sports. In 1983, neighborhood and park advocates formed the Thornden Park Association to rally for park improvements and to bring more people into the park.(19) By working with the Parks and Recreation Department, a one-way traffic pattern was developed through the park. An Annual Winter Festival established in 1985, which includes wagon rides, ice skating, and cross country skiing promotes year round use of the park.

In 1985, a Citizens Park Commission was formed to promote the preservation of major parks in Syracuse - Thornden, Burnet, Elmwood, Lincoln, Onondaga and Schiller Parks. The commission was composed of members from Thornden Park and Onondaga Park Associations. They addressed the following park issues: vegetation, maintenance of park facilities, traffic and parking, security and vandalism. The research and information generated recommendations compiled in "Report of the Citizens Park Commission" July, 1986.

In 1988, the "Syracuse Historic Landscape Resources Survey" conducted by the City of Syracuse, Department of Community Development, Landmark Preservation Board, and Walmsley & Company, Inc. identified Thornden as a historic landscape.

Thornden Chronology

- 1873 Major Alexander Davis purchased J.P. Haskins estate.
- 1875 Thornden country manor built.
- 1892 David Campbell becomes gardener for Davis estate. The spatial organization of estate buildings and pleasure ground landscape features established. European beech planted.
- 1900 Davis family leaves Syracuse/Thornden to reside in England
- 1902 David Campbell becomes superintendent of Syracuse city parks.

- 1910 Major Davis dies in England
- 1913 Chamber of Commerce for Syracuse advocates acquisition of Davis estate for city park.
- 1917 David Campbell takes a ten year lease on Thornden estate
- 1921 City of Syracuse purchased Davis estate for \$225,000.
- 1923 Swimming pool constructed in Thornden Park and rose garden designed.
- 1924 Elon P. Stewart standpipe constructed on the top of the hill and the surrounding area is regraded, seeded with grass, and planted with trees. Park roads laid out, in part to existing estate drives and topography.
- 1925 Pavillon in Edmund M. Mills rose garden dedicated.
- 1926 Athletic field constructed in the park. Ornamental lights installed along park road.
- 1927 Olympic size swimming pool and bath house built to replace old swimming pool. Children's playground constructed. Davis country home repaired for use as a community house.
- 1928 Estate greenhouses and barn demolished. Extension to the Mills Rose Garden.
- 1929 Community/estate house destroyed by fire.
- 1930 Davis estate trout pond drained and amphitheater built. Perennial Garden constructed.
- 1931 Pinetum planted by faculty from College of Forestry. 1,000 lilacs in bloom. George Washington elm dedicated.
- 1933 Field house constructed. Lower Rose Garden planted.
- 1939 Herb Garden laid out by Herb Society. Dedication of George Washington plaque.
- 1940 Syracuse University students maintain rhododendrons along azalea walkway.
- 1941 Cinder walkway around perennial garden replaced with brick.
- 1963 Lighting improved throughout the park.
- 1964 Thornden Park "Fun Fest" for the community.
- 1966 Spray pool dedicated.
- 1970 Field house used as neighborhood center.
- 1971 Swimming pool repaired.
- 1976 Children's playground repaired. Overgrown vegetation cleared.

- 1980 Exercise course installed.
- 1982 May Day ritual initiated.
- 1983 Herb Garden replanted.
- 1985 First Annual Winterfest held.
- 1987 Thornden Park Association enters agreement with Department of Parks and Recreation to maintain Rock Garden. Vehicular traffic changed to one-way. Football field built on the athletic field.
- 1988 Amphitheater modified. College of Environmental Science and Forestry-Student Chapter of Forestry enters agreement with Department of Parks and Recreation to maintain Pinetum.
- 1989 Thornden Park designated as local historic resource by the Syracuse Landmark Preservation Board and the city. Lilac grove replanted.
- 1990 Lily pond in the perennial garden altered and structural work completed on Elon P. Stewart Standpipe. Nomination application submitted for State and National Registers of Historic Places.
- 1991 Memorial tree planted for Marilyn Brown, Nancy Zahm, Thomas Meachem, John Messerly, and Vincenzo Petrullo.

Relationship To The Urban Park Movement In America

Thornden Park made a significant contribution in the development of the park movement in Syracuse and is a good representative of the Pleasure Ground and Reform Park types within the American Park Movement. The historic significance of Thornden Park was achieved between 1892 to 1941 with the influence of David Campbell in the planning and design of the park landscape. According to the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, a property is determined significant and, therefore, potentially eligible for listing in the National Register of Historic Places, if the property meets one or more specific criteria: (20)

Criteria A: Properties may be eligible for the National Register if they are associated with events that have made a significant contribution to the broad patterns of our history.

Criteria B: Properties may be eligible for the National Register if they are associated with the lives of persons significant in our pasts.

Criteria C: Properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

Criteria D: Properties may be eligible for the National Register if they have yielded, or may be likely to yield, information important in prehistory or history.

Thornden Park is eligible for the National Register based on Criteria C. The landscape and recreational facilities of the park represent significant qualities of both the Pleasure Ground and Reform Park types.

Pleasure Ground features designed for the Thornden estate and the park include spatial arrangement of lawns, masses of trees, water features, and rolling topography. Vegetation was used to form and modulate spaces. Mass plantings of irregular shape suggested the feeling and idea of distance. A formal gardenesque design style is apparent in the axial perennial gardens and geometric rose gardens. Formal elements such as the stone entrance piers mark a change from the surrounding urban context to a naturalistic landscape. The informal organization of these features are in direct contrast to the cityscape.

Architecture within the park is integrated into the landscape. The Elon P. Stewart standpipe is a functional element and aesthetic accent in the landscape. This structure acts as an organizing element by terminating vistas from other areas of the park. In addition, the structures and buildings exhibit a variety of architectural styles that focus visual attention throughout the park.

The Reform Park era influenced the placement of recreational features into the Thornden landscape. The field house and amphitheater were built for community events. Ballfields, swimming pool, tennis, and

basketball courts brought active forms of recreation to the meaning of park. Elements, such as fences, partitioned recreational features in the landscape. Swings and other play equipment for children were an important social activity found in neighborhoods and introduced into the pastoral park landscape. The stone work of the amphitheater, steps, walls, and entrance piers characterize construction practices of the Work Projects Administration(WPA) with high artistic value to the park landscape. A comprehensive inventory of existing conditions identified the condition of these Pleasure Ground and Reform Park features in the Thornden Park landscape.

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8. [Faint text]
9. [Faint text]
10. [Faint text]
11. [Faint text]
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INVENTORY OF THE PARK LANDSCAPE

The significance of Thornden Park is supported by an inventory of existing conditions which include the district/neighborhood, landscape site, natural features, spatial organization, and landscape features. Within the category of natural features, vegetation has been discussed in length because it is a major component of the overall historic character of the designed historic landscape.(1) Both indigenous and introduced species of plants are commonly used to form and modulate landscape areas as described in the Pleasure Ground Park era. In addition, vegetation is intrinsically subject to change due to disease, maturation, deferred maintenance and seasonal effects.

The information gathered in the inventory is necessary to assess integrity and to recommend preservation treatments which are important to the future of Thornden Park. This section begins with the relationship of the park to the surrounding physical context.

District/Neighborhood

The Highlands of the 1900's has been altered into the University Hill District of today. The expansion of educational institutions, residential neighborhoods and small businesses around Thornden Park has changed the suburban character into an urban setting. The west side of the park along Ostrom Avenue faces Syracuse University. Student dormitories and apartments have replaced the single family dwellings once advertised by developers during the Thornden estate years. The residential sections to the south (Clarendon Street), east (Beech Street), and north (Madison Street) sides of Thornden Park expanded in street pattern configurations and density. The residential population is comprised of University staff/students, senior citizens and families, which also compose the current mix of Thornden Park users. Several neighborhood groups, such as the Thornden Park Association(TPA), Westcott/East Neighborhood Association(WENA), and Southeast University Neighborhood Association(SEUNA) have formed to address issues facing the park and character of the neighborhood.

Landscape Site

The Department of Parks and Recreation has maintained the 76 acres of Thornden Park since 1921 as a community park. The original boundaries of the park have not been altered.

Natural Features

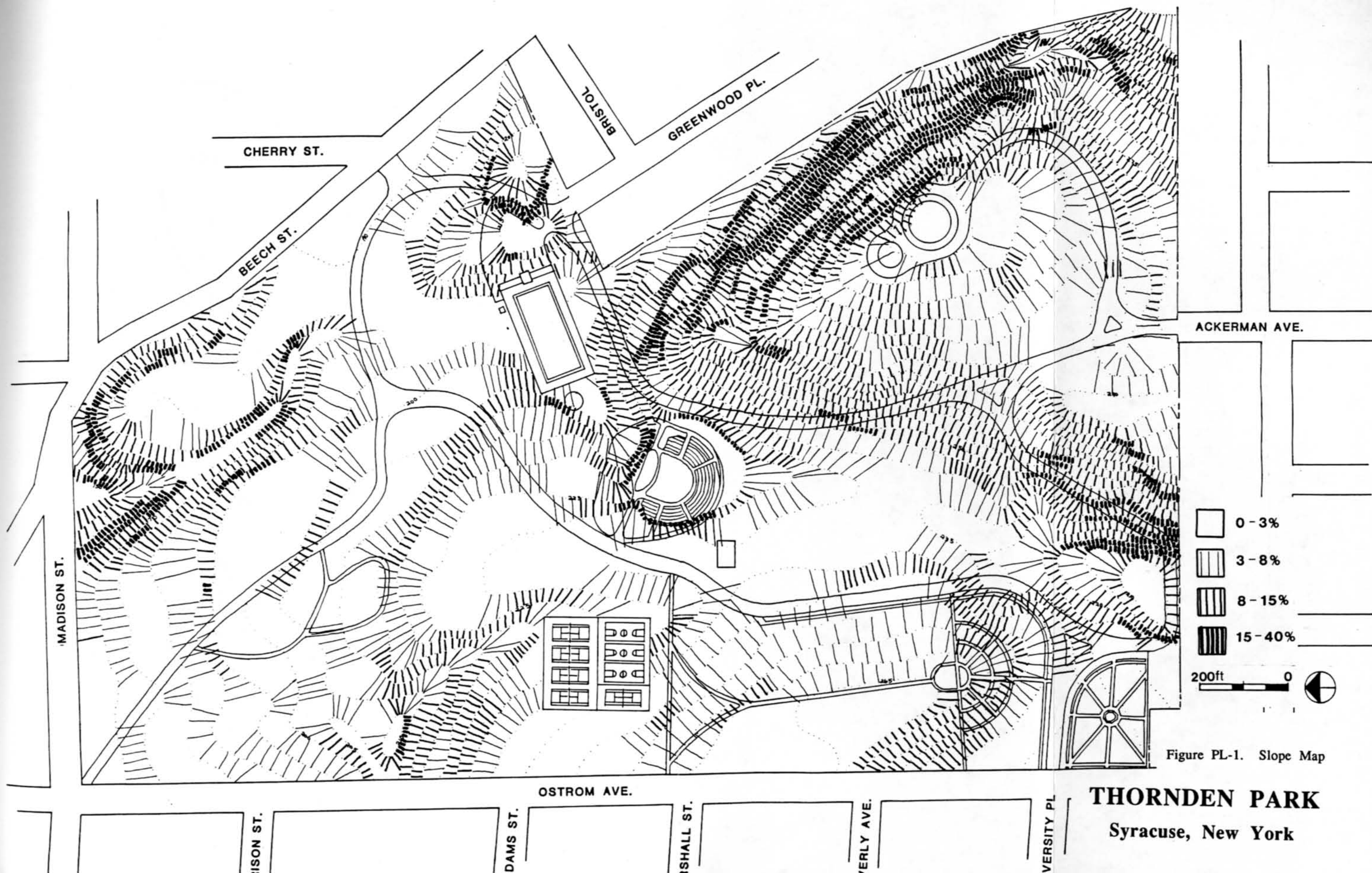
Topography

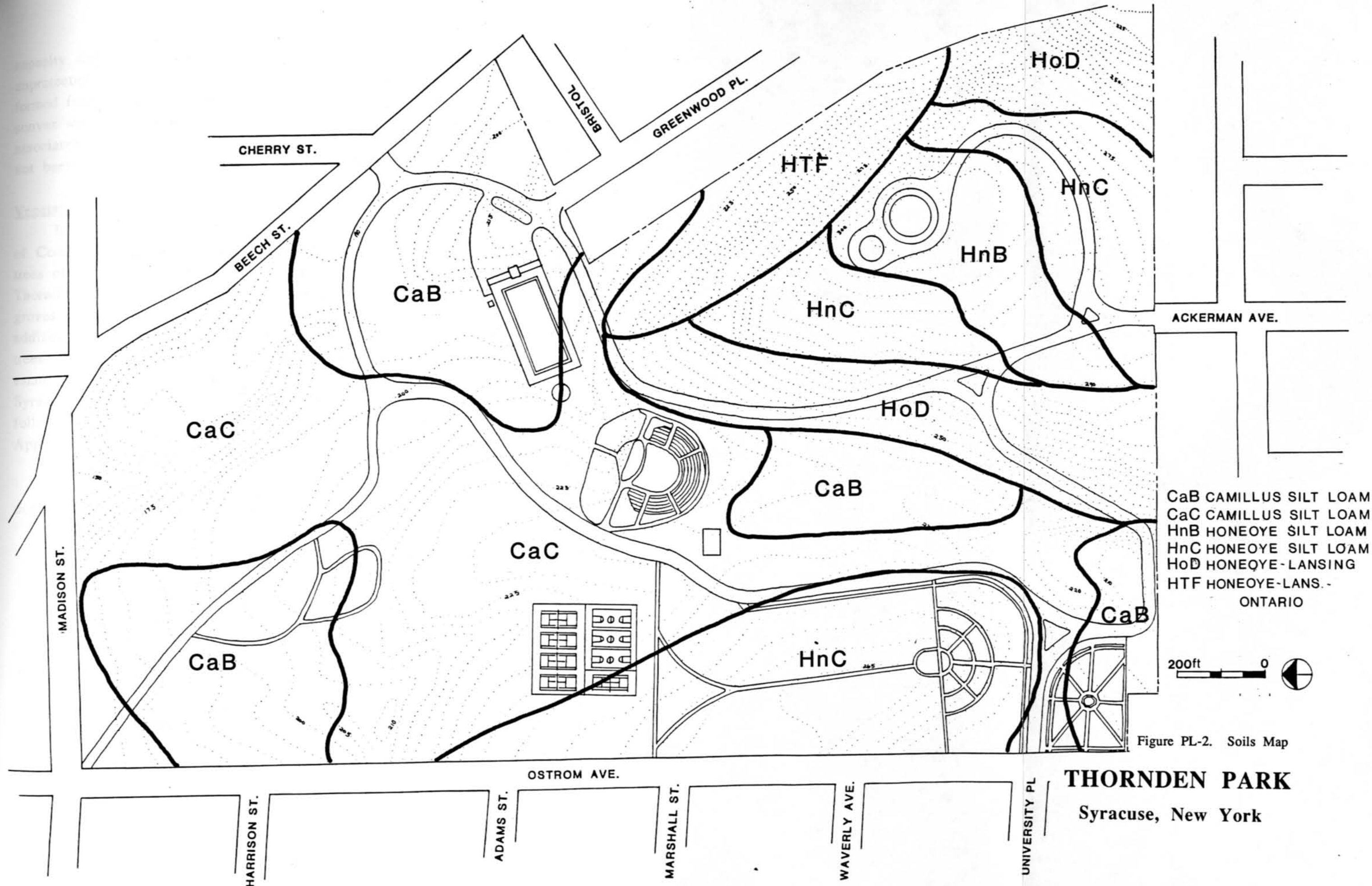
Syracuse, New York is situated on the border of two regional physiographic provinces, the Erie-Ontario Lake Plain and the Alleghany Plateau.(1) The metropolitan area occupies the Onondaga Valley within the lake plain region. This lowland area joins a limestone escarpment along the northern edge of the Alleghany Plateau. The plateau is broken up by ridges and valleys extending north and south, with glacial cross channels cutting through from east to west. Drumlins are scattered throughout the lake plains and to the north of the plateau. Thornden Park is located on the higher extensions of the plateau.

The topography of the Davis estate landscape has not been altered to accommodate park features. The northern edge of the park has an undulating topography with 3-8% slopes that existed as lawn around the Davis country manor.(Fig. PL-1) The lowest elevations of 150 feet exist in this area of the park. A drumlin in the southeast corner was once the agricultural fields of the estate and still emphasizes Thornden's natural landform beauty. Elevations reach to 310 feet. at the top of the drumlin for panoramic views of the lake plain. The steepest slopes (15-40%) are found in this area. Both the topography of the estate and park interior is composed of level areas, and depressions. An elevation of 265 feet rises gradually on the west side of the park with views overlooking the Onondaga Valley.

Soils

The Camillus and Honeoye soil series occur throughout Thornden Park.(2) (Fig. PL-2) Both series are well-drained, medium textured soils that respond well to good management and are suitable for recreational uses. The Camillus Series are 20-40 inches deep over a soft-gray, silty shale bedrock. The soil material has a moderate to high available water





capacity and responds well to fertilization. Complex slopes and erosion of unprotected areas are the main limitations. The Honeoye Series was formed from calcareous glacial till. Honeoye silt loam soils are found on convex side slopes within the park. The very steep soils in this series are associated with the drumlin. Research indicates that these soil series have not been altered from the original estate landscape.

Vegetation Cover Types

In 1912, the committee of fifty members from the Syracuse Chamber of Commerce argued that the topography, lawns, shrubbery and beautiful trees of the Davis estate was one of the advantages of purchasing Thornden for a public park. The northeast area of the estate included groves of oaks, various conifers, hawthorn and a european beech. In addition, there were two orchards comprised of pear, apples and cherries trees. Large willows occurred as a linear strip along the east side of the estate. After the estate was purchased on December 13, 1921, the Syracuse Department of Parks and Recreation inventoried tree cover the following year. Historic analysis of the estate landscape is presented in Appendix B.

For this project the following landscape cover types were used to describe the landscape patterns in Thornden Park from 1926 to 1989:

Forest - An area with a closed canopy and an understory with at least an assemblage of shrubs, sapling, or seedlings. Ground surface is litter layer/bare ground.

Gardens (formal) - A designed and maintained area for horticultural cultivars (annuals/perennials) planted in geometric ground beds.

Lawn - Mowed grass for recreational use.

Linear Vegetation - Trees and/or shrubs along circulation routes or perimeter of the site.

Mass Plantings - Trees and/or shrubs planted in an extensive area (slopes).

Parkland - Large trees scattered or in groves with no understory and grass ground surface.

Paved - Artificial surfaces, buildings, and recreational facilities.

Pinetum - A collection of native and non-native conifer species in one location for educational or display purposes.

Shrub-Forest - A stage of development representing the transition to a forest condition.

These cover types represent the groups of vegetation that were introduced or naturally formed. The methodology and analysis used to describe changes in vegetation patterns throughout the park is explained in Appendix C.

From 1926-1955, (Fig. PL-3).vegetation cover changed with the increase in acreage of formal gardens /pavement and the decline in the amount of lawn (from 65.3% in 1926 to 49.1% in 1955). Formal gardens increased from 1.1% in 1926 to 2.3% by 1955. The construction of recreational facilities, and new roads increased the pavement cover from 5.9% in 1926 to 11.7% in 1955. Although trees were planted along circulation routes during the 1930's, linear cover actually declined between 1938 and 1955 (from 6.9% to 4.9%). This reduction in cover was attributed to the decline and loss of the lilac hedgerow due to shading from the emergent shrub-forest cover.

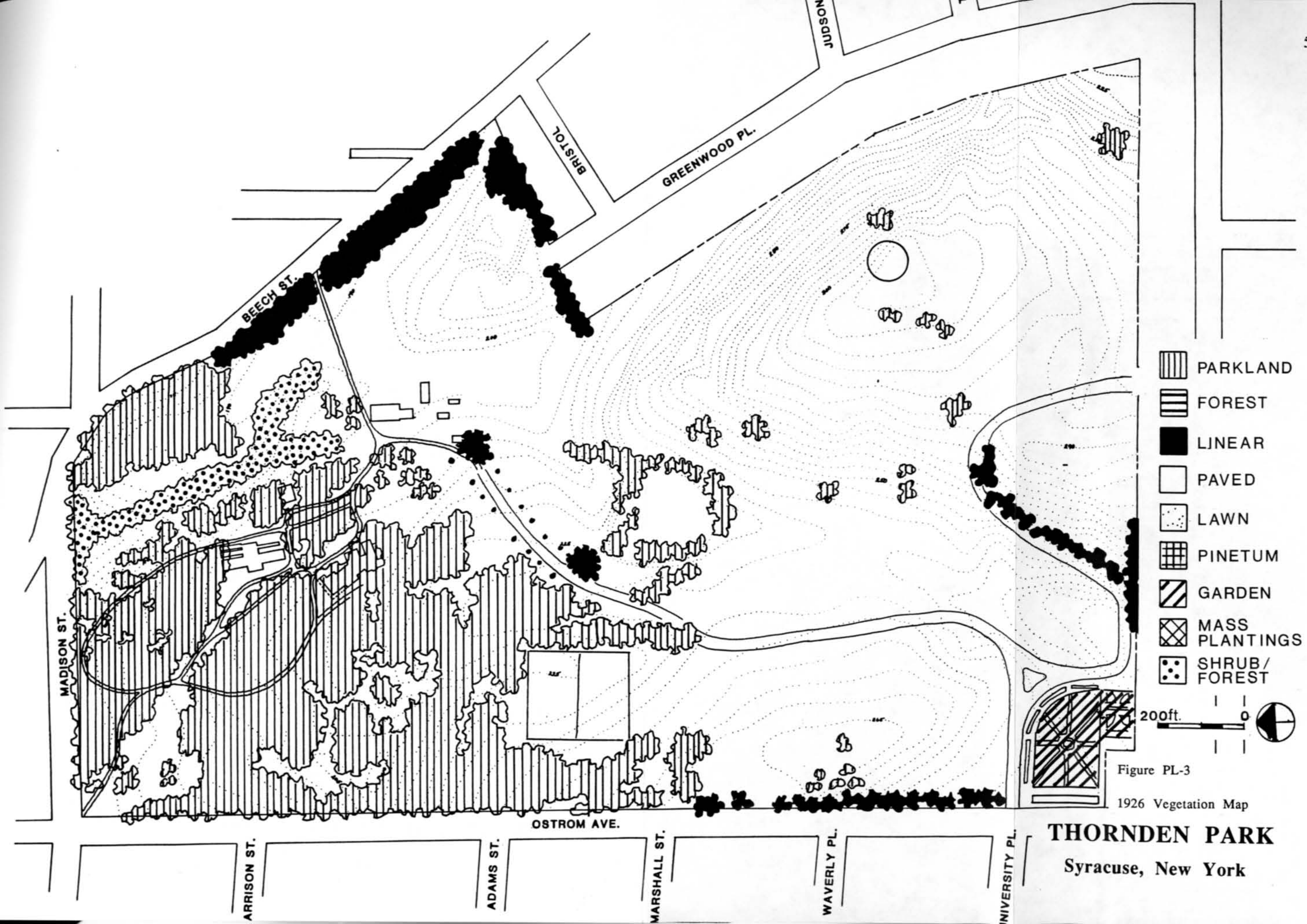
During the 1930's, the Syracuse Department of Parks and Recreation established several mass plantings. The primary propose for these plantings was to prevent the erosion of glacial till soils on steep slopes within the park. The mass planted areas resulted directly in the development of the forest cover type. Analysis of the increment cores, taken during the 1989 inventory (Appendix C) for this project, indicate that the slopes along the azalea walkway, east of the standpipe, and adjacent to the road leading to the standpipe were mass planted with conifers during the early 1930's.

Composition of the conifer species along the azalea walkway included Norway spruce, blue spruce, white spruce, white cedar, hemlock, and yew. East of the standpipe and along the park road, only Norway spruce was planted. As mass plantings grew, development transformed these sites to shrub-forest and forest covers. By 1955, 4.2% of the park was in a forest condition.(Fig. PL-4)

During the late-1960's as typical of the Open Space era, active management, necessary to maintain the park's landscape, gave way to deferred maintenance . Forests covered all of the mass plantings of the 1930's. This increase in forest interrupted views within the park and with surrounding neighborhoods. The spatial character of the area changed with increasing degrees of enclosure from the mass density of trees and shrubs.

Deferred maintenance caused the lawn area in the southeast corner to convert to a shrub-forest cover during the 1970's. In combination with the forest cover, the condition of this area affects the perception of available open space for spontaneous recreational opportunities. For example, the inward-outward views and vistas associated with this area no longer exist as they did pre-1960. The noticeable results from lack of maintenance lead to the demise of the perennial/rock garden and lower rose garden which is represented in the decline of the overall garden area (from 2.5% in 1955 to 1.8% in 1981). The Mills Rose Garden still exist due to the continued maintenance by dedicated volunteers of the Syracuse Rose Society.(Fig. PL-5)

An important event during this time period was the decline of the elm. A unpublished report, by Dr. Hugh Miller, Extension Agent at the College of Forestry, Syracuse, New York, provided an account of the decline of this prestigious tree in the City of Syracuse between 1955 and 1972. Although mortality was minimized through the use of pesticides and fungicides, the elms quickly died or had to be removed after the use of these biocides were terminated. By 1977, over 600 elms were removed from the park resulting in a decline of parkland cover and character (from 22.5% in 1955 to 13.5% in 1977).(3)



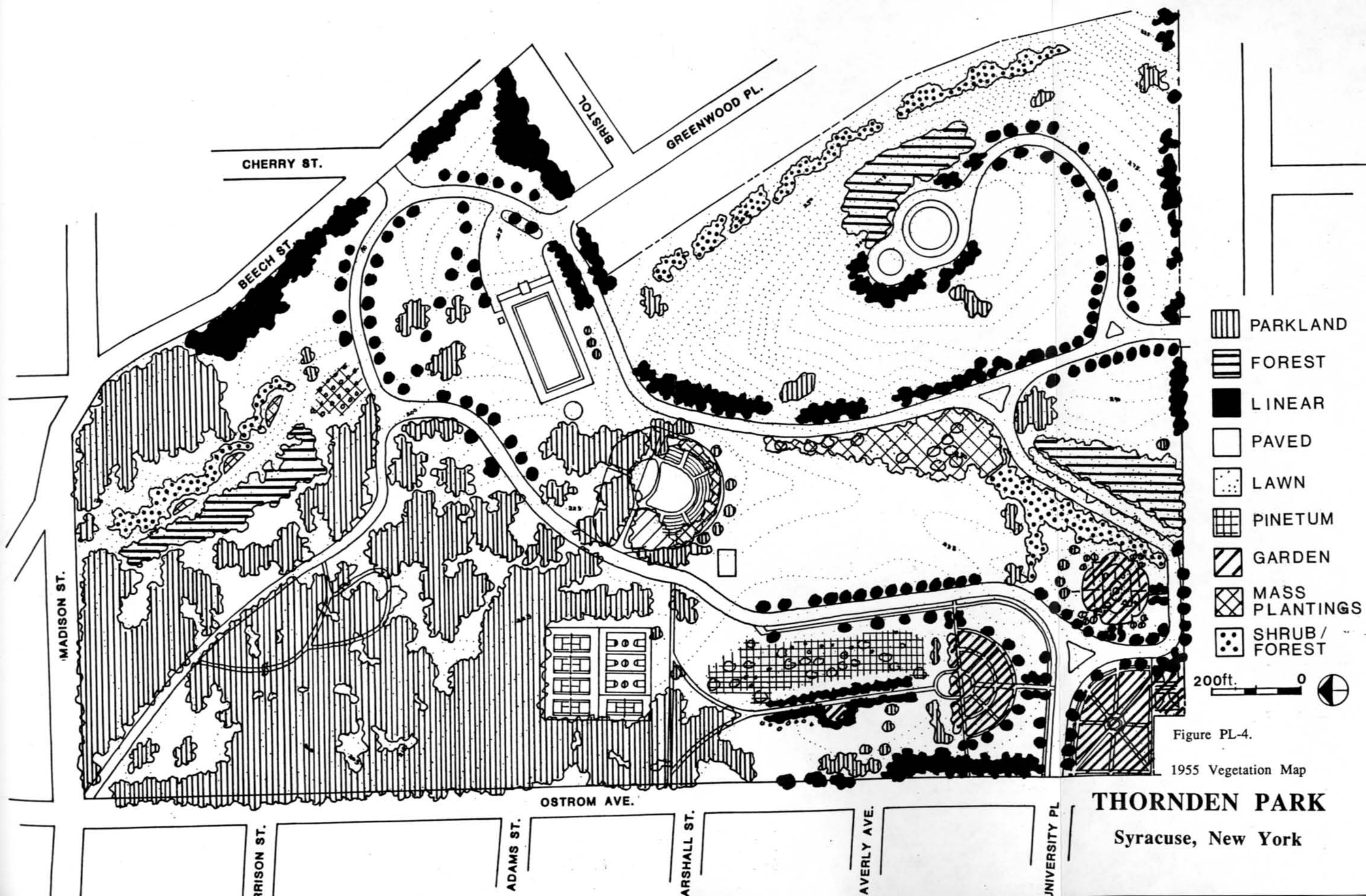
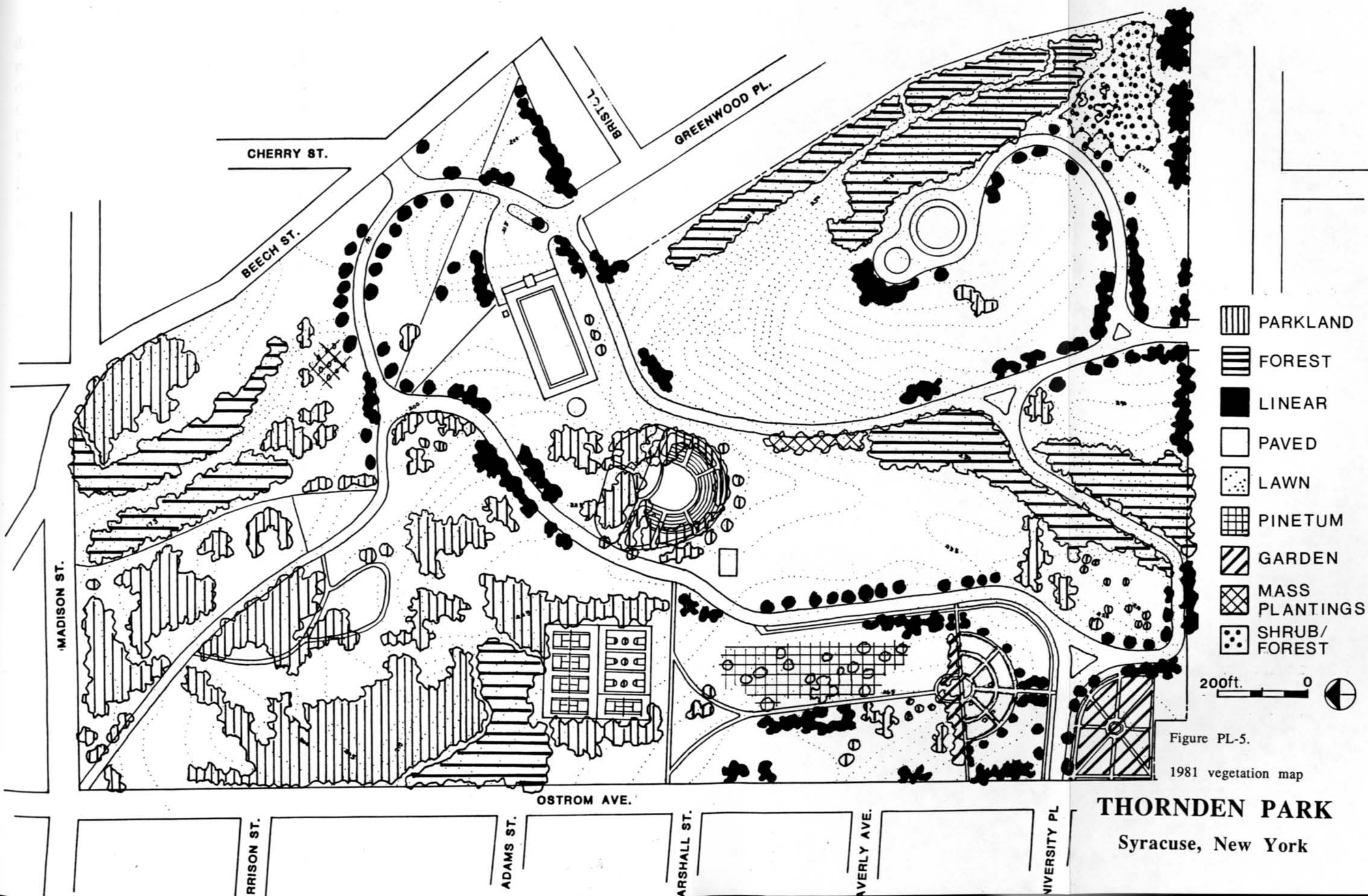


Figure PL-4.

1955 Vegetation Map



The sampling of tree structure and composition was conducted during this project in 1989 for three covers types in the park: forest, parkland and linear.(Fig. PL-6) The forest cover, a condition that has only developed since 1955, is dominated by Norway maple (54.9%).(Appendix C) Other important species include Norway spruce (8.2%), hemlock (5.4%), pin cherry (4.8%), box elder (3.8%), black cherry (3.4%), white cedar (2.6%), and white spruce (2.2%). The conifers existing in the forested areas were initially part of the mass plantings of slopes during the 1930's. In contrast, the occurrences of hardwoods on these sites result from natural colonization.

With the loss of the elm component, the species dominance of the parkland changed drastically. The parkland cover now is dominated by five species: sugar maple (21.9%), Norway spruce (15.6%), Norway maple (12.1%), Carolina poplar (8.5%), and white ash (7.8%).(Appendix C) Of the sampled species, only Norway maple is considered to be a contemporary species. Most of the linear cover was planted during the 1930's and 1940's, and plantings were dominated by Norway maple, although elm did contribute to the linear cover prior to 1964. In addition to Norway maple (52.6%), other important species include silver maple (31.9%), Norway spruce (7.4%), and pin oak (3.7%).(Appendix C)

In 1989, the tree cover types--forest, parkland, and linear--differed in vegetation structure and these differences are related to management and natural processes. The forest cover exhibits a different pattern from the other two. The forest cover has a high density of individuals within the small size class (≤ 6 inches), whereas parkland and linear show deficiency in this class. The high values in the forest results from natural regeneration, whereas the lower values in the other covers are attributed to vandalism of newly planted trees. The deficiency in the smaller diameter classes is especially evident in the linear cover. The diameter distributions of the parkland and linear covers indicate an unstable condition.(4) (Fig. PL-7) There are too few small diameter trees to replace the older trees and maintain a continuous canopy cover.

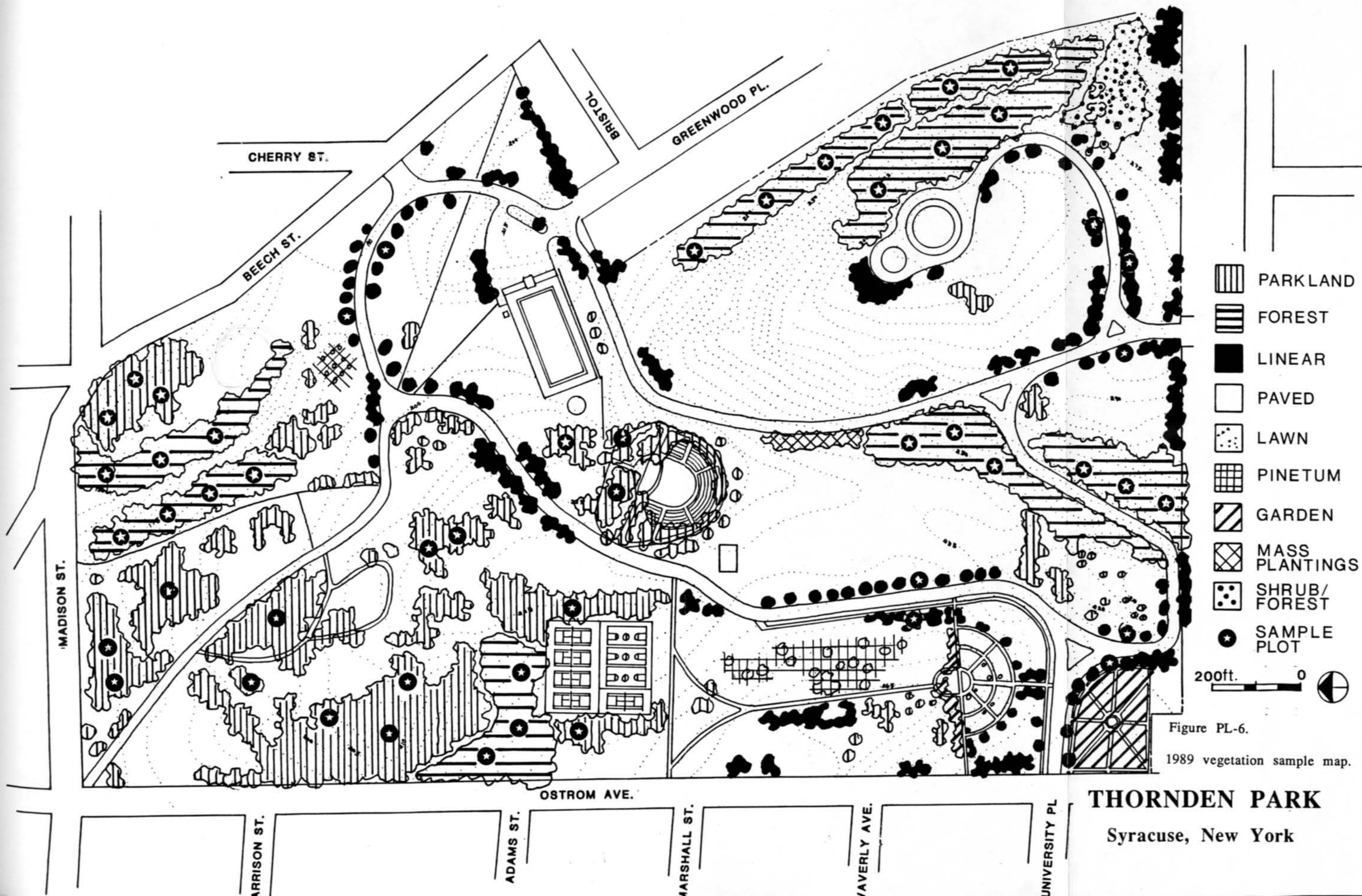


Figure PL-6.

1989 vegetation sample map.

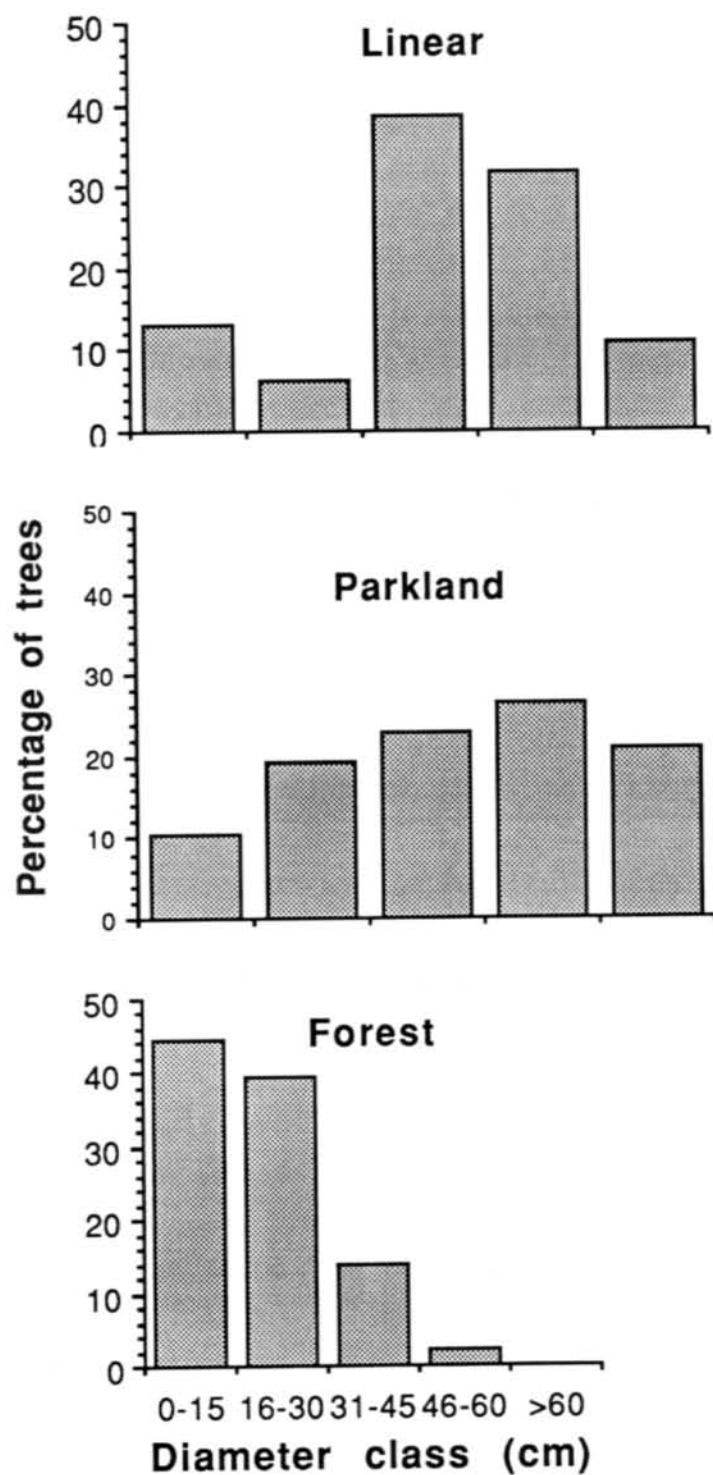


Figure Pl-7. Diameter distributions for linear, parkland, and forest cover types in Thornden Park in 1989.

A comparison of area percentages for each cover type from 1926, 1955, and 1981 shows the overall changes in cover types for the park.(Fig. PL-8) The period between 1926 and 1955 shows the spatial organization of the park landscape, whereas the period between 1955 and 1981 shows the decline of spatial patterns of vegetation leading to the deterioration of the overall spatial organization. Changes in cover types include the loss of total parkland area, and total lawn area. Pavement has increased throughout the park and a forest cover type has developed. Taken in conjunction with the reduction in formal gardens, the amount of area available for passive uses has declined during the last two decades.

A comparison of species composition between 1926 and 1989 illustrates the changes in species cover (Fig. PL-9) Four obvious changes include the loss of elms due to the Dutch elm disease, the introduction of Norway maple, the increase in the percentage of other maples and spruce, and the removal of the orchard and willow species. The introduction of Norway maple and the increase in other maples (principally silver maple) resulted from the development of a linear cover. Norway maple has supplanted elms as the dominant plant in the park. In each of the vegetation covers, Norway maple significantly contributed to the structure and composition. Because of this dominance, the park is susceptible to conditions similar to those experienced by the loss of elms to the Dutch elm disease.

In the early 1900's, the Pleasure Ground landscape of the Thornden Estate was identified as a "park ready made". The various landform types, groves of trees and open lawns as well as a picturesque water feature were valued landscape attributes for a public park. Landform, vegetation, and landscape features continued to physically and visually organize the park as it transformed from a private estate.

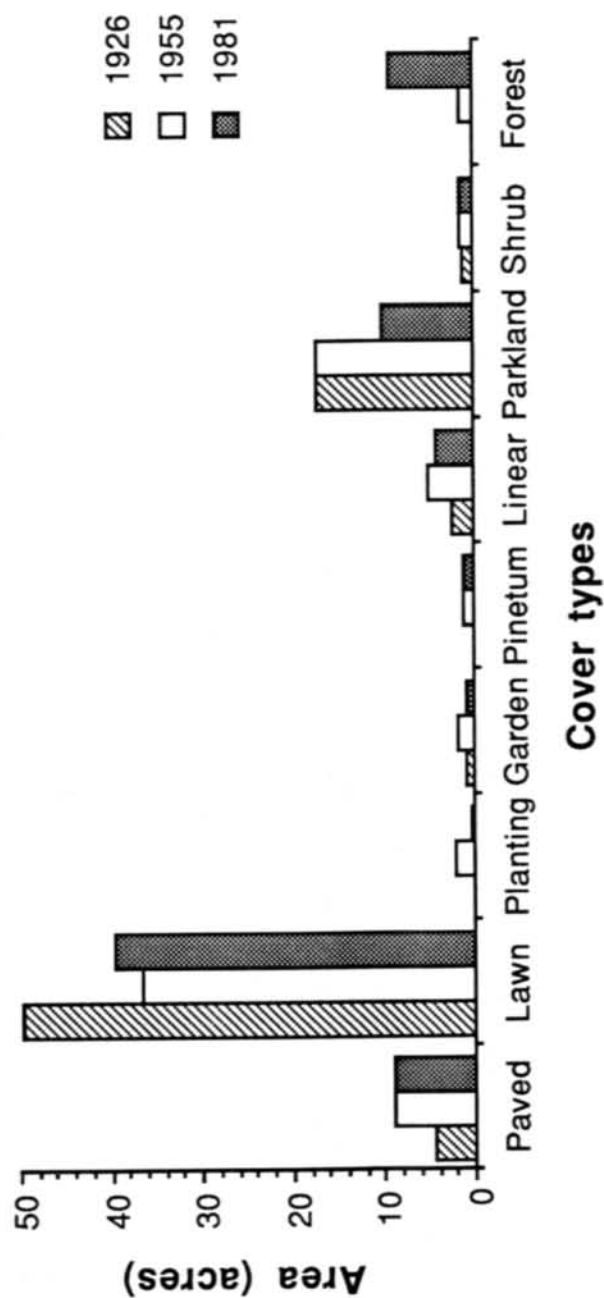


Figure PL-8. Comparison of cover types from Thornden Park for 1926, 1955, and 1981.

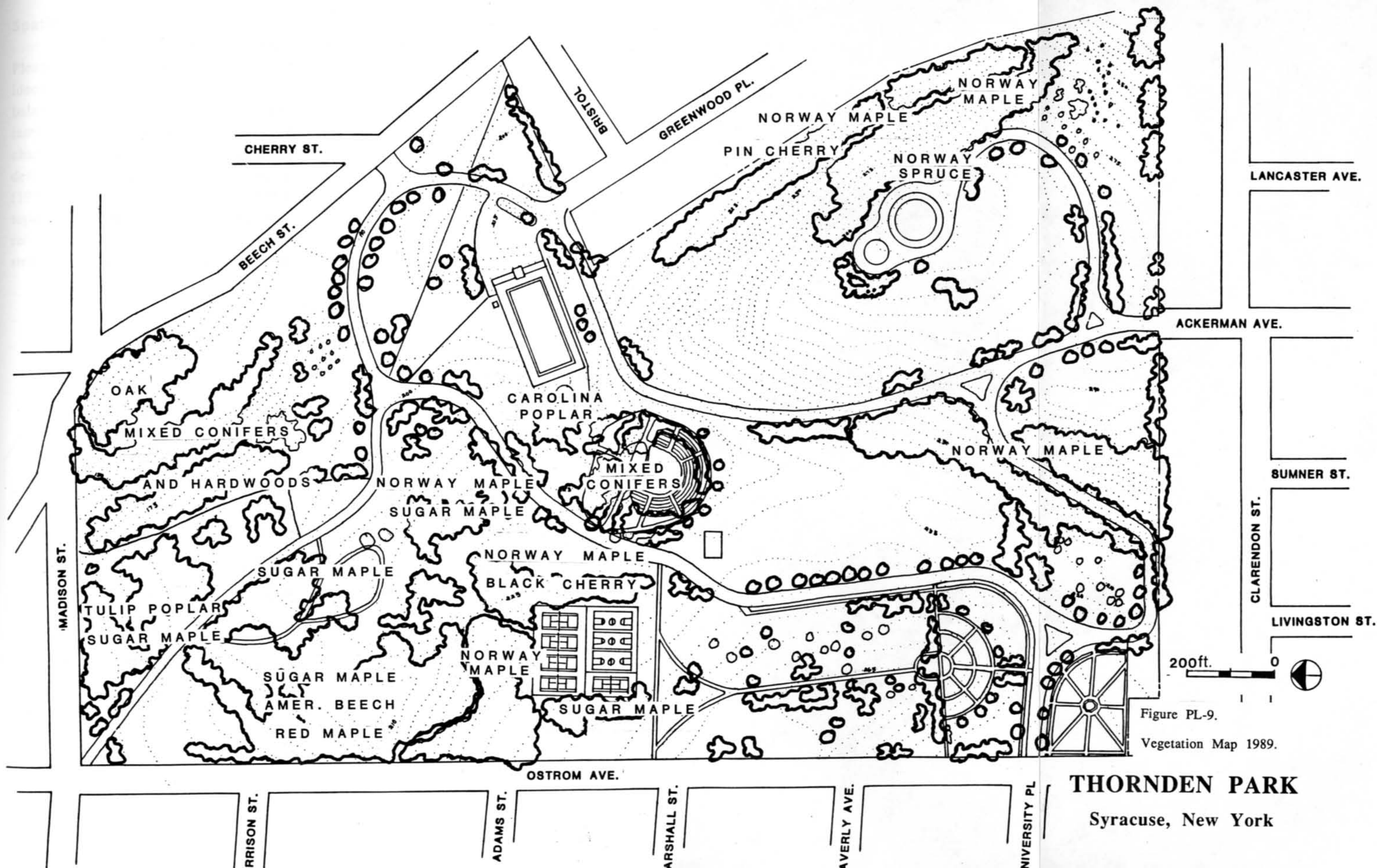


Figure PL-9.
Vegetation Map 1989.

THORNDEN PARK

Syracuse, New York

Spatial Organization

By 1941, local park designers had combined the artistry from the Pleasure Ground park design with recreational activities from Reform Park ideology. The resulting park layout incorporated the informal landscape, balanced with formal geometric and axial gardens, and circulation interweaving recreational facilities. A series of icons define the historic character of the Thornden Park landscape. These icons depict the spatial definition (topography, vegetation, and building/structures) of the estate (1926) and the park landscape (1955 and 1989). (Fig. PL-10) The estate topography has not been altered but vegetation has played an important role in the definition of areas throughout the park. Extant buildings and structures were constructed during the period of significance

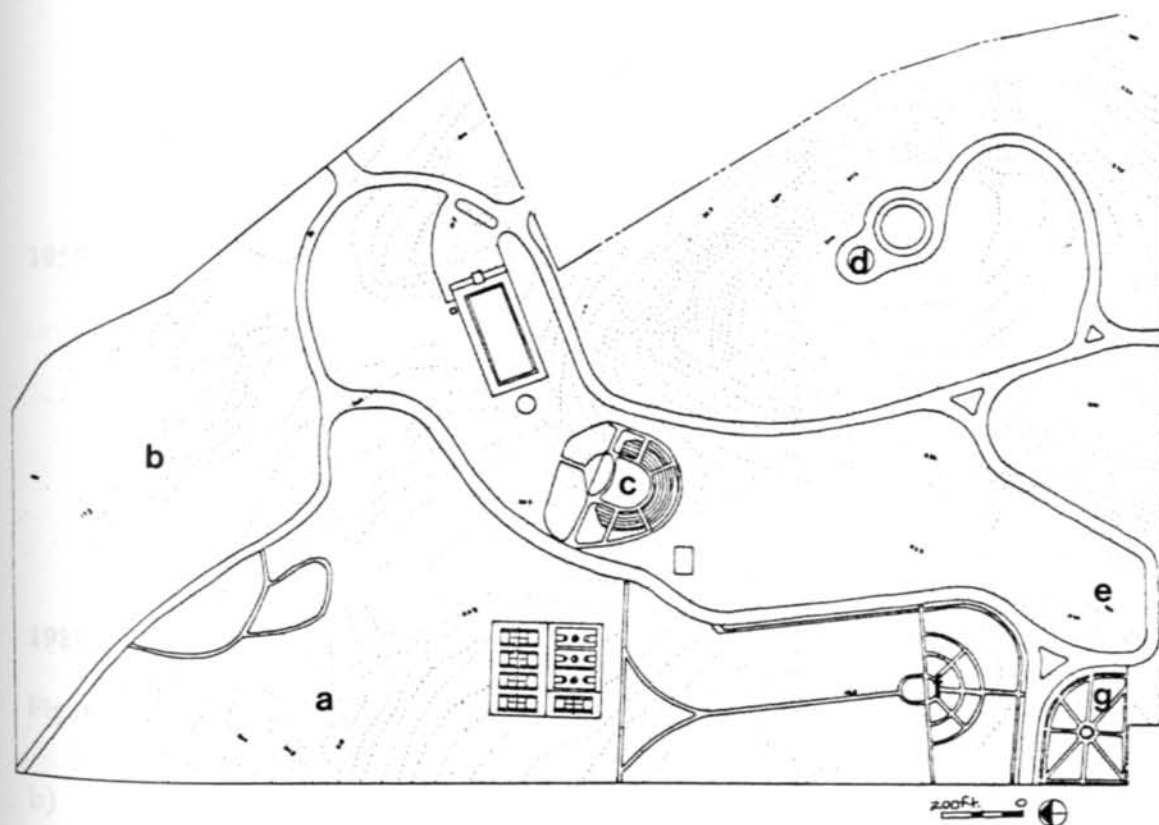
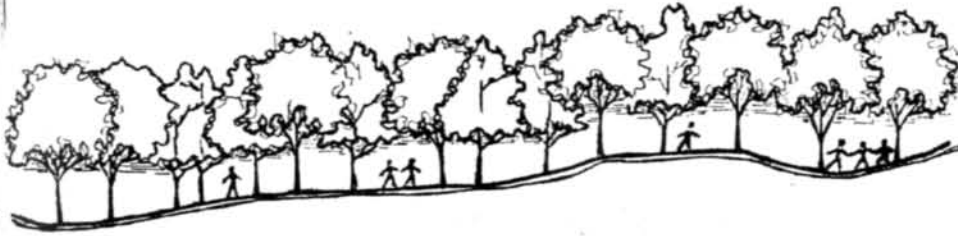


Figure PL-10. Location of icons representing overall park landscape.

a) Parkland (estate lawn)

This area, located in the northern section of the park, has maintained an undulating topography and grove of trees. The tree canopy created an

overhead plane with side views. The loss of trees has opened up the canopy and allowed for upward and side views throughout the area. Existing spatial qualities of the parkland augments the diverse park landscape.(Fig. PL-10a)



1926



1955



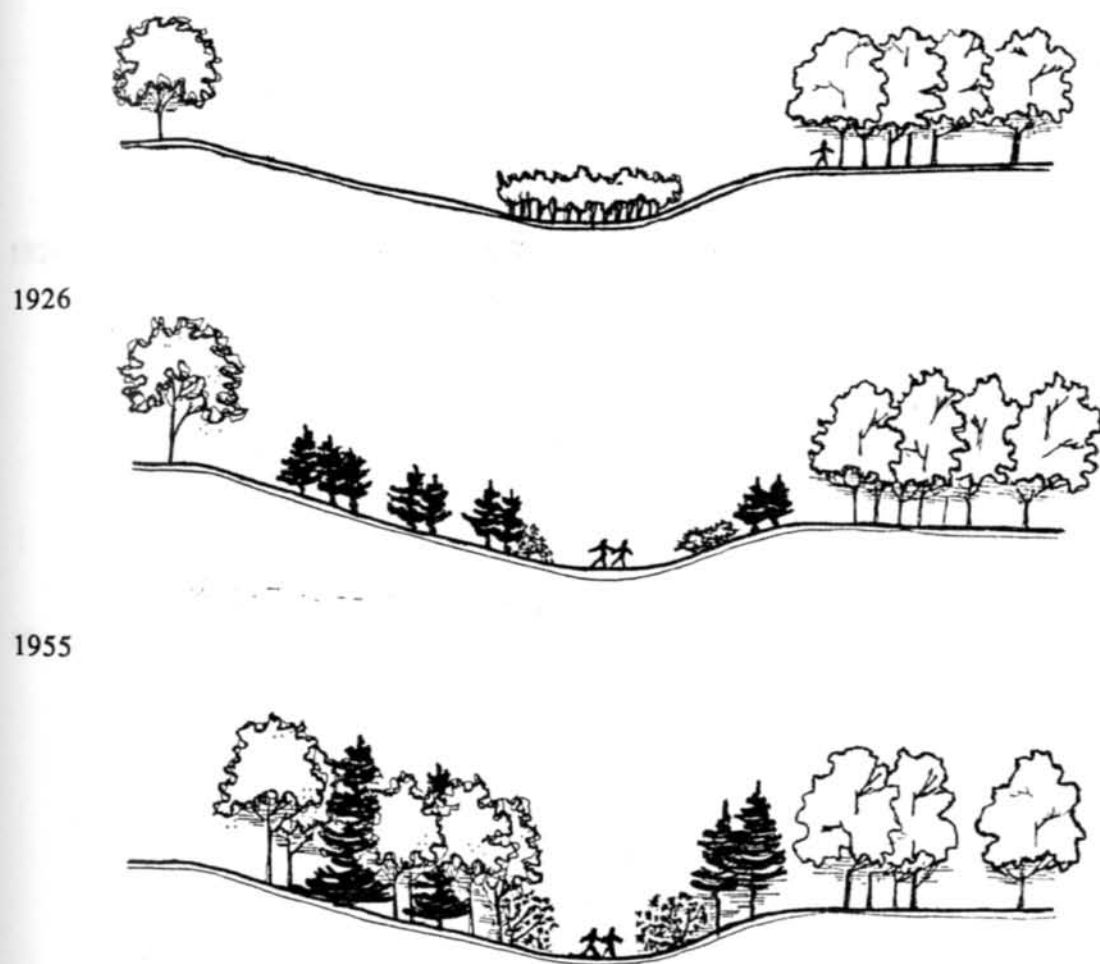
1989

Figure PL-10a: Parkland (estate lawn). The area illustrates changes in canopy cover.

b) Azalea Walk (estate willow thicket)

A willow thicket negated the space created by topography. Park designers created a positive space by removing the willows and adding a pedestrian path which linked the neighborhood and directed movement to areas within the park. Mass plantings along the banks of the ravine accentuated the existing vertical enclosure of the topography and provided artistically composed plantings.

By 1989, the height of the vegetation formed a more pronounced delineation of space and a woodland character in keeping with a Pleasure Ground experience (Fig. PL-10b).



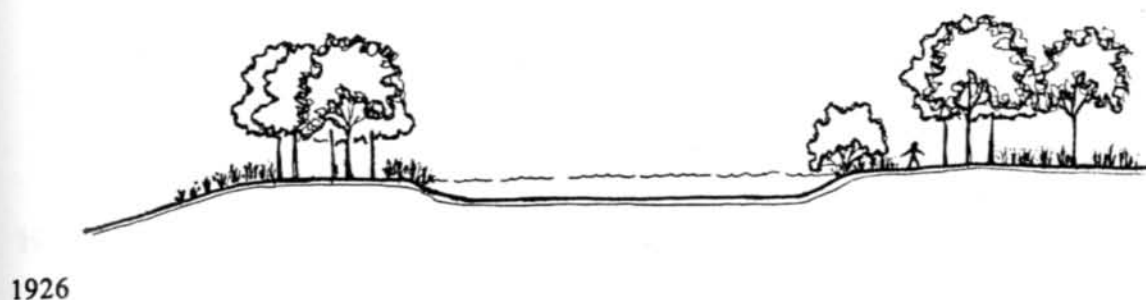
1989

Figure PL-10b. Azalea Walkway (estate willow thicket). A different use and function of vegetation has changed the spatial definition of the landscape.

c) Amphitheater (trout pond)

The conversion of the trout pond to an open amphitheater removed a pleasure ground park element and replaced it with an outdoor room for civic activities. The vertical enclosure of landform and vegetation formed the spatial definition. Today this enclosure has been accentuated by mature vegetation.

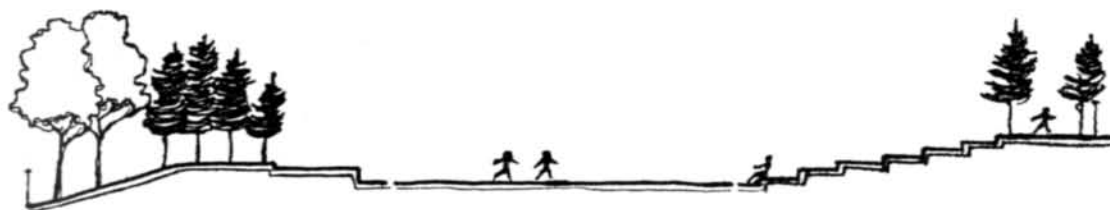
The original inward-outward orientation of the trout pond has become an inward orientation to the amphitheater (Fig. PL-10c).



1926



1955



1989

Figure PL-10c. Amphitheater (trout pond). Draining the pond left a depression that was transformed into an outdoor room.

d) Elon P. Stewart Standpipe/Drumlin Area

The drumlin area of the estate has remained the highest elevation within the park and continues to offer comprehensive open views of the city. The addition of the standpipe, loop road, and vegetation defined the spatial planes of this convex landform and established a landmark within a dominant open space. Currently, the outward orientation, architectural feature and circulation remain but mature trees and loss of other

vegetation has altered the spatial definition of the area making the area less open and restricting views to the east (Fig. PL-10d).

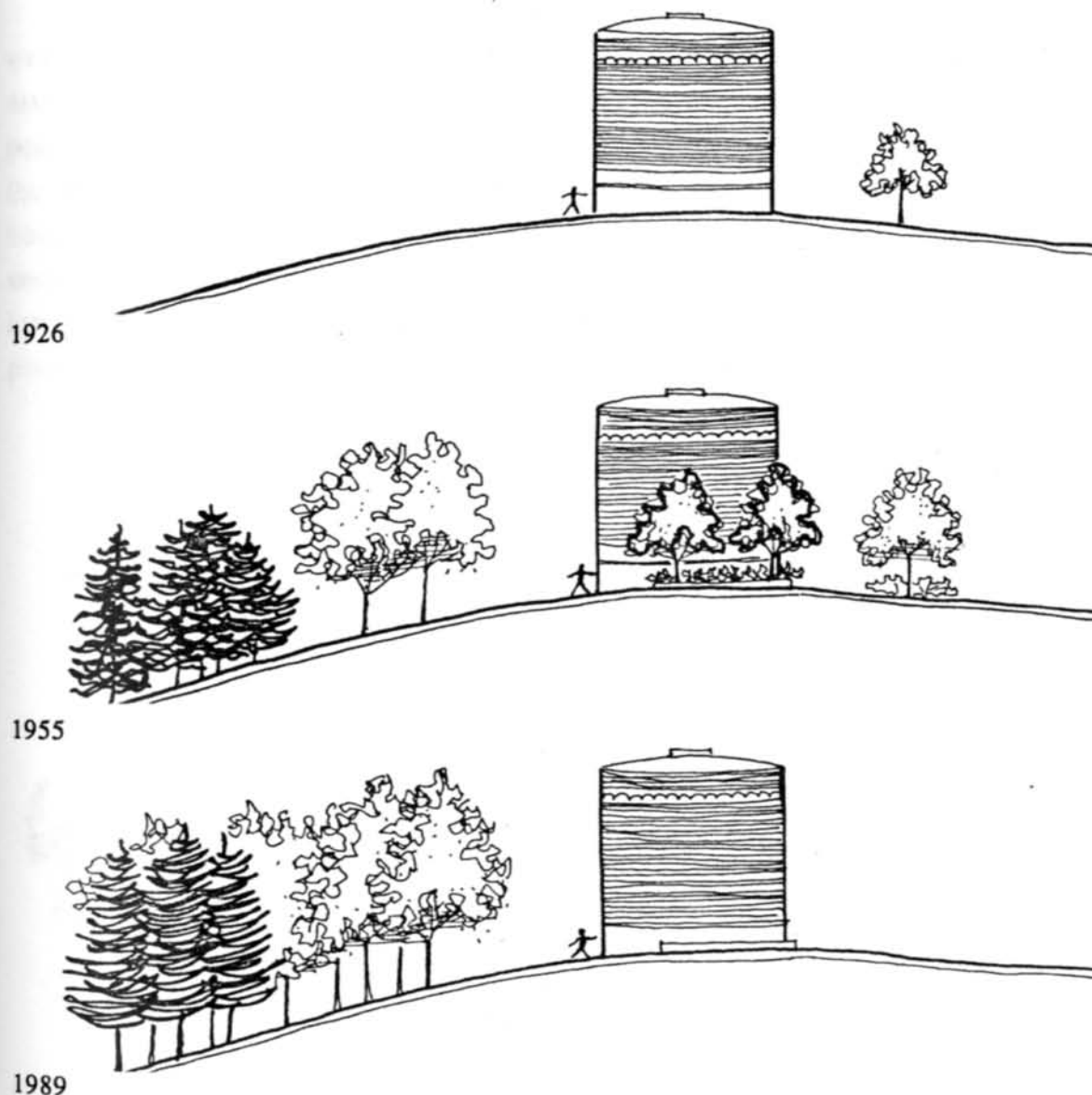


Figure PL-10d. Elon P. Stewart Standpipe/Drumlin Area. Changes in vegetation are responsible for alterations in spatial definition.

e) Lower Rose Garden

This naturally occurring landscape depression of the estate landscape was turned into a formal sunken garden. The landform to the east forms a semi-enclosed space and restricts views, but to the west, views of the perennial-rock garden and Edmund M. Mills rose garden are open. During the period of significance, cinder paths, turf surrounding beds of rose bushes defined the base plane. The vertical plane consisted of cedars arranged throughout the area. In 1989, paths are mere impressions in the lawn, roses and other ornamental shrubs no longer define the spatial planes.(Fig. PL-10e).

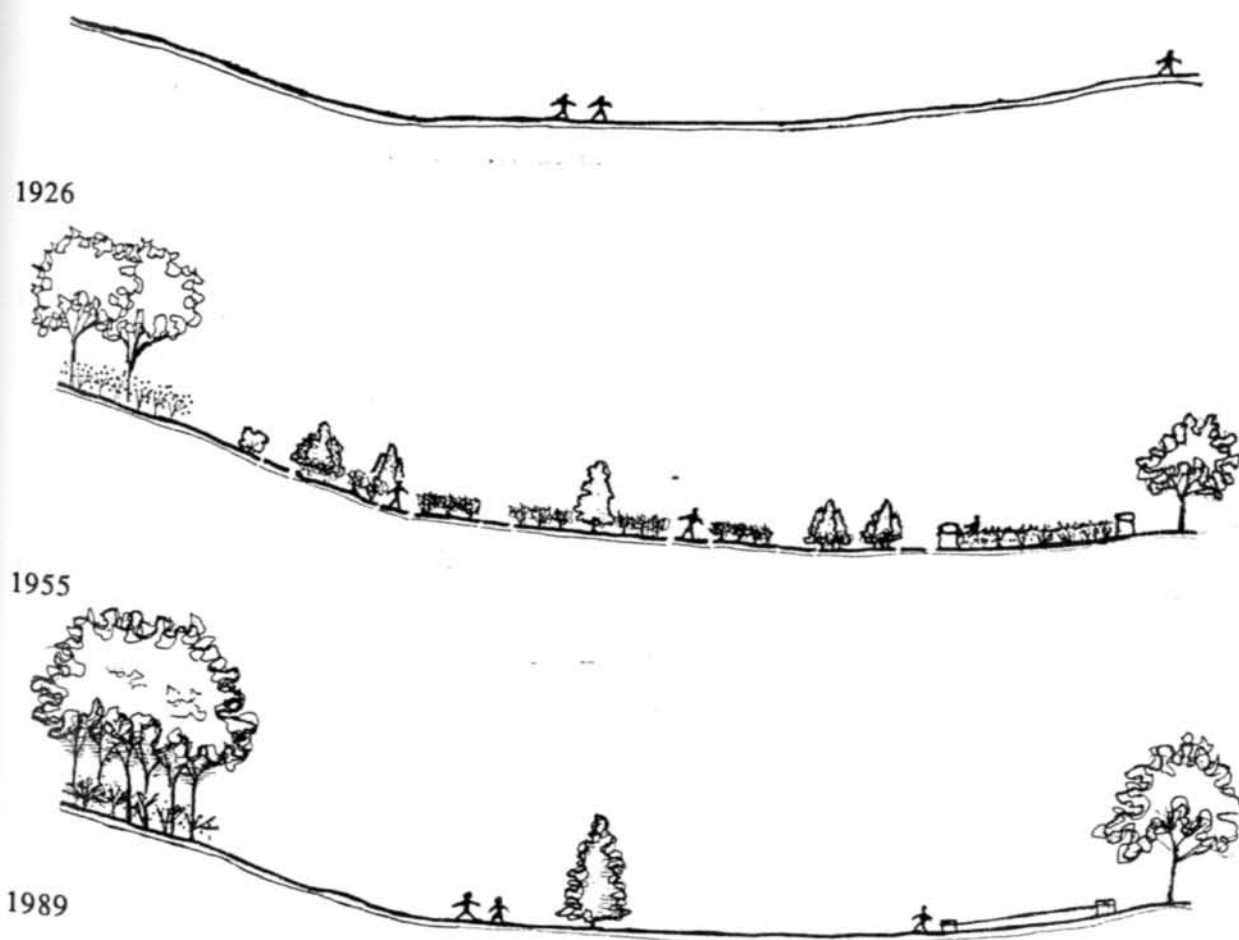


Figure PL-10e. Lower Rose Garden. The formal garden design has become undefined.

f) Perennial-Rock Garden

This elevated open space of the estate landscape was designed into a formal garden that framed views of the lower rose and Edmund M. Mills rose gardens. and was in sequential order along an axial path. Ornamental shrubs, herbaceous plant materials growing in beds, and brick paths defined the base and vertical planes. The open space had an inward-outward orientation. The lily pond is an important water feature and focal point for the garden.

In 1990, the overall open form of the space exist with brick paths and a repaired lily pond but the annual and perennial beds are covered with lawn. The Thornden Park Association has cleared out the overgrown vegetation surrounding the lily pond and planted a variety of perennials. The area is still in sequential order along the axial path.(Fig. PL-10f).

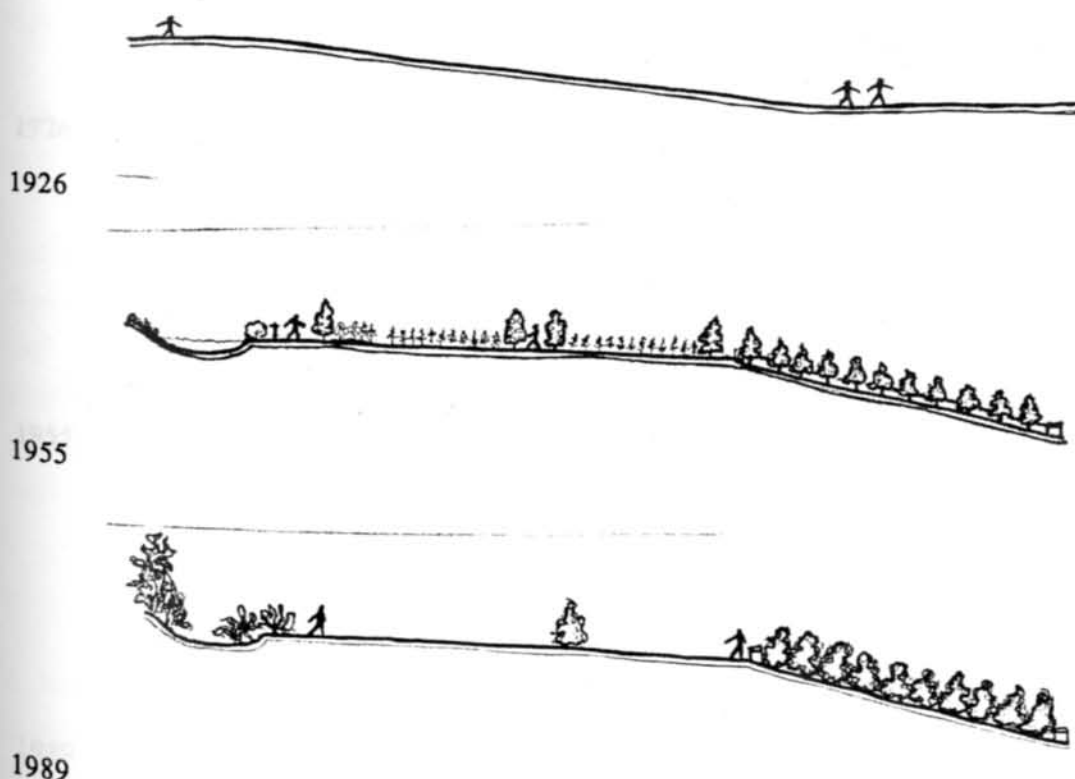


Figure PL-10f. Perennial-Rock Garden. This formal garden design is important to the garden setting in Thornden.

g) Edmund M. Mills Rose Garden

This open area on the estate was designed as another formal garden with an inward and outward orientation. Beds of rose bushes and brick paths radiating out from a central pavilion defined the ground plane. The pavilion and wrought iron arches defined the vertical plane. Today, the spatial organization and features of the garden remain intact. A small portion of rose beds were converted to lawn.

The Edmund M. Mills Rose Garden is the only remaining display of formal garden design in the park. The designed spatial organization of this garden, the lower rose garden, and the perennial-rock garden was to establish a formal entry to the southwest corner of the park (Fig. PL-10g).



1926



1955



1989

Figure PL-10g. Edmund M. Mills Rose Garden. The only formal garden design existing in the park today.

A description of the sequential movement through several areas in the park will identify the existing condition of circulation patterns, views/vistas and landscape features.

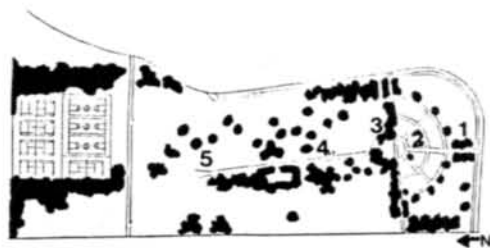
Perennial-Rock Garden-Pinetum

This area borders the western boundary of the park at Ostrom Avenue and the university neighborhood. The sketch plan depicts the sequential movement [1-4] through the area. The visitor has a feeling of complete enclosure and constricted views while ascending the rustic stone stairway [1]. Anticipation builds as a park visitor approaches the top. Longer views open up into the space as the garden area becomes visible.

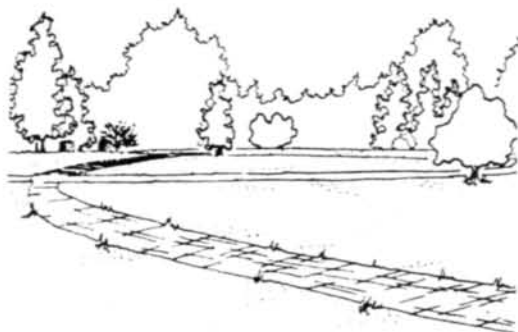
The radial and semi-circular brick paths indicate a formal design pattern.

A lawn cover has replaced the horticultural displays of perennial flower beds edged with closely mown turf. The loss of flower beds, and shrubs has weakened the effect of the formal garden and the transition between city and park.[2].

At the focal point of this garden is a rebuilt (1990) lily pond with a rock garden (20'x70') on either side. Another series of steps rise to a higher level [3] within the sequence (265' elevation). The shrubs within a small



[1] Garden-Pinetum stairway



[2] Lawn covered area

sitting area over the lily pond are overgrown and disrupt original views looking back across the perennial garden and distant views to the Mills rose garden.



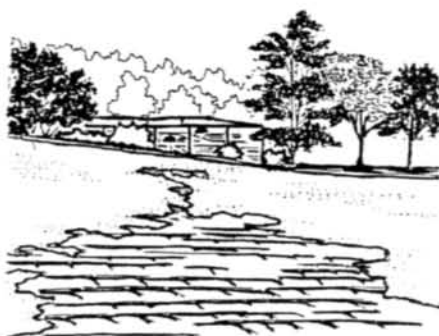
[3] Stairs leading to pinetum

To the north, is the pinetum and a hidden herb garden (30'x50') with 87 different culinary, household, and medicinal herbs [4]. Longer views extending out to the west reveal the University Hill district and the city's downtown. The brick path continues alongside the pinetum with interior views of the park to the east.



[4] Walkway along side pinetum

The original brick path diverged in one direction toward the city street and in the other direction along side the tennis courts within the park.

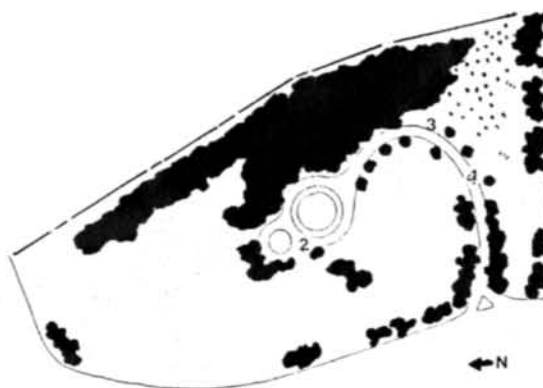


[5] Brick path covered with grass

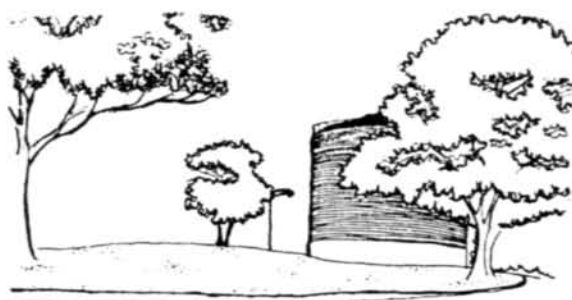
Today, this path ends abruptly, [5] destroying the link between park features and the surrounding cityscape.

Elon P. Stewart Standpipe/Drumlin Area

The main park road climbs to the highest elevation of 310', with views



sweeping across open lawn up to the standpipe [1]. At the summit, this architectural feature dominates the space and surrounding vegetation constricts views to the east. The road winds around the standpipe and opens up vistas of the physiographic region.



[1] Road leading to standpipe

Internal park features are the foreground, with urban features in the middle ground. Onondaga Lake, of the lowland plains and Allegheny plateau are visible in the background. These views identify the geographical setting of the city and its regional context [2].



[2] Views to the west

This sequence continues, with emergent vegetation to the southeast slope interrupting distant views to the residential neighborhoods and drumlin fields[3]. The tree lined park road directs movement to the neighborhood, as a result of the one-way road pattern for the park.



[3] Views to the southeast

Landscape Features:
Recreational Facilities

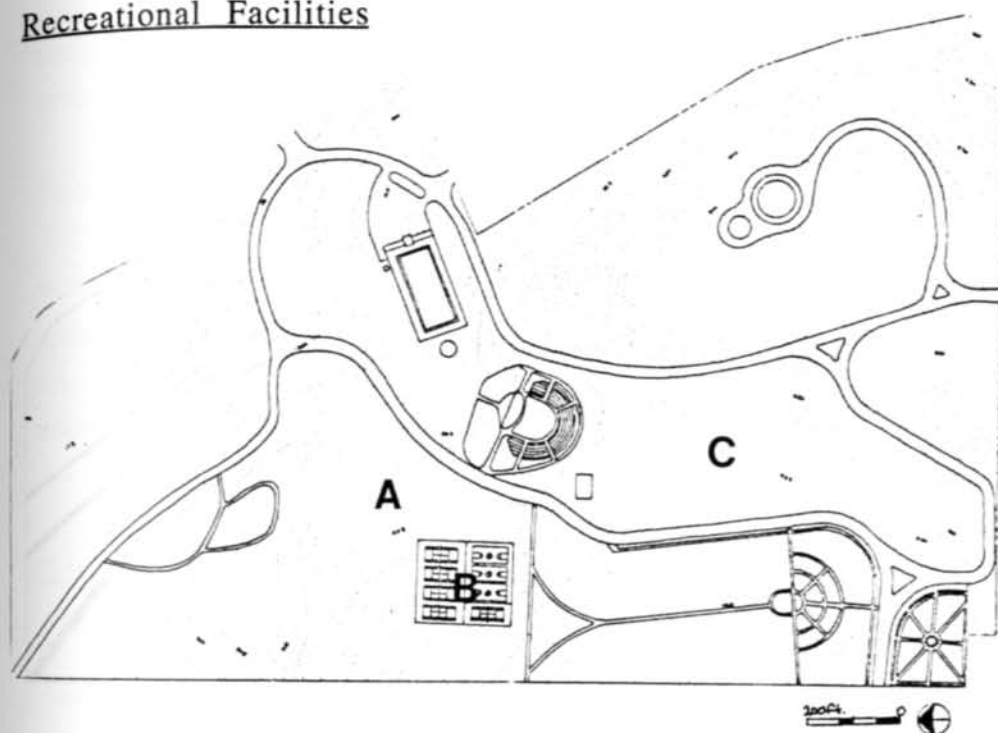


Figure PL-11. Location of recreational park features.

A. Children's Playground And Picnic Area(Fig. PL-11)

The playground (1927), located within the park's interior, is north of the amphitheater. Play equipment includes swings, slides, and rocking animal structures for toddlers and young children. In 1971, timber climbing equipment was added to the playground. The picnic area is adjacent to the playground. The area has a wooden shelter and picnic tables.

B. Tennis/Basketball Court (Fig. PL-11)

The courts (1926) are located on the west side of the park. There are 5 tennis courts and 3 basketball courts enclosed by a chain link fence.

C. Athletic Field (Fig. PL-11)

The athletic field was located (1926) on a level area of the park topography and originally designed with a running track and baseball diamonds. In 1987, the field was converted to a football field with the addition of bleachers, goal posts, and wooden barriers along the road.

Circulation

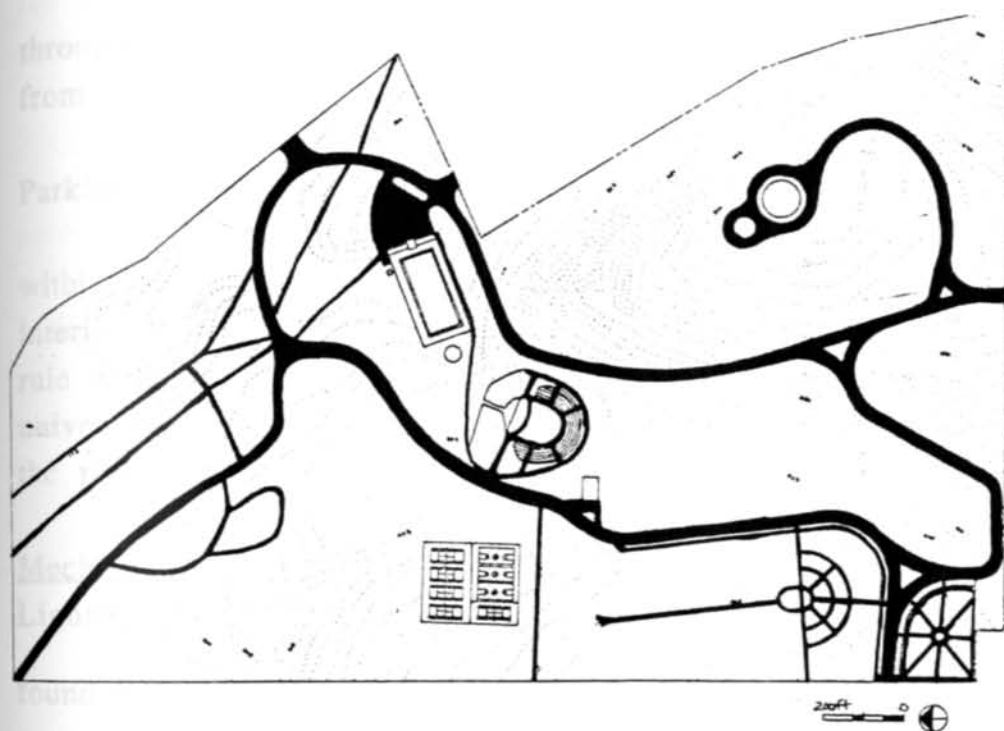


Figure PL-12. Circulation system and parking lot.

A hierarchy of circulation is vital to the experience of the park landscape. Passive recreational spaces are connected to the active recreational spaces through paths and roads so that the park user has a better understanding and mental map of Thornden (Fig. PL-12).

Roads:

During the 1920's, a two way road pattern was established in the park. In 1980, a one way pattern was developed in an attempt to reduce traffic flow and congestion on neighboring streets. The location and width have remained constant.

Paths :

Pedestrian circulation throughout the park consist of various types of paving materials (brick, asphalt, and concrete). A sidewalk runs the east, north, and west side of the park perimeter. Existing garden paths join at the park road and/or internal park walkways.

Steps:

There are stone and brick steps to facilitate grade changes throughout the park. The location and width of the steps have not changed from the original construction.

Parking Lot:

The asphalt lot, in front of the bath house, is the original location within the park. This lot can hold 30 cars but there is no demarcation for interior circulation patterns or parking stalls (Fig. PL-12). A 'no parking' rule along the park road exist in Thornden. However, people attending university sport events, classes and little league football games, park along the road making passage through the park difficult.

Mechanical Systems (Fig. PL-13)

Lighting:

Cobra head light fixtures line the park road. Walkway lighting is found in the Edmund M. Mills Rose Garden and amphitheater.

Site Engineering Support Systems (Fig. PL-13)

Retaining Walls:

Stone walls are located in three areas of the park. A wall along the road at the standpipe is crumbling. The other stone walls in the northern section of the park exist along Madison Street and adjacent to the children's playground. Minor repairs are needed.

Water Features (Fig. PL-13)

Swimming Pool:

The swimming pool (200'x75') has an adult section and a childrens section separated by a concrete walkway. The concrete apron around the pool has a brick strip similar to the detailing in the bath house. A chain link fence replaced the original wrought iron fence surrounding the pool.

Lily Pond:

The semi-circular pond (50'x17') was rebuilt in 1990. The original stone was used for the pond's perimeter/water fall and the base was resurfaced with concrete. An electrical line was laid to permit the

installation of a recirculating pump for the water. In the summer of 1991, the pond was filled with water and plants (i.e., water lilies, taro, papyrus, and water lettuce).

Spray Pool:

The spray pool, located between the swimming pool and amphitheater, was built in 1966. The water sprays inward from the rim of a steel spiral.

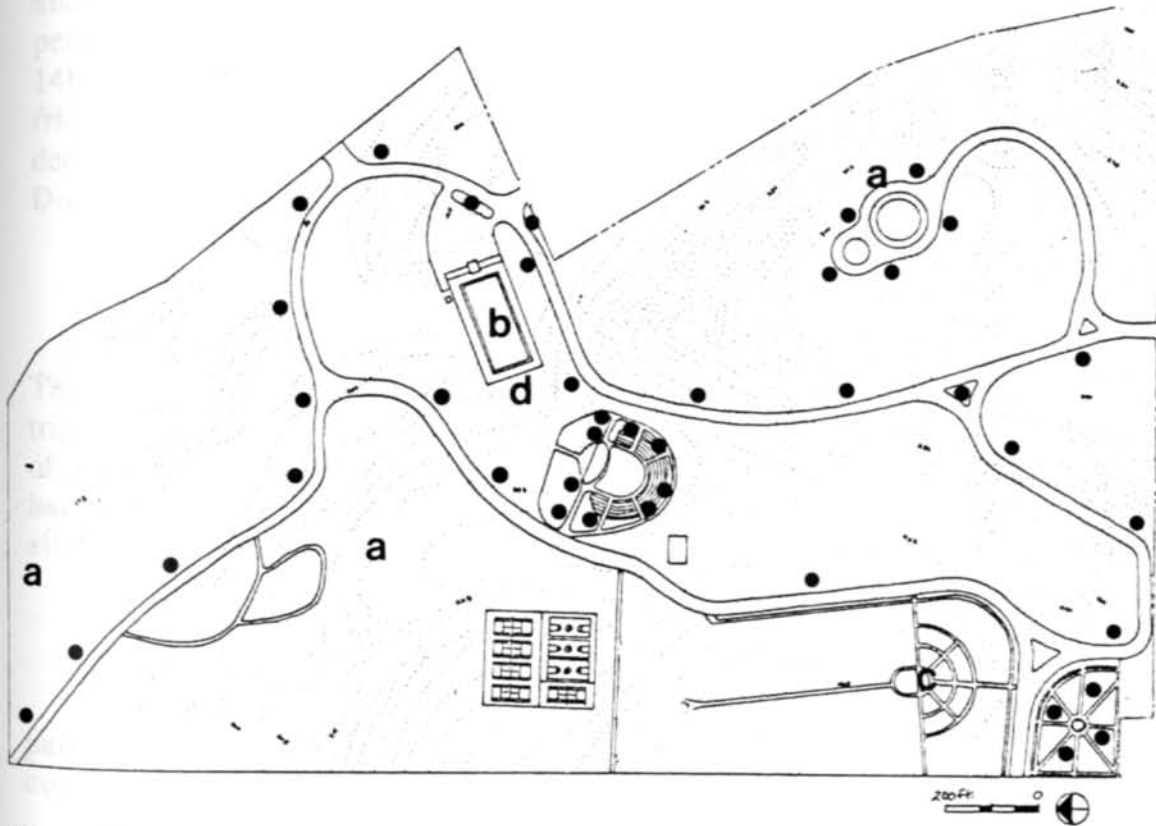


Figure PL-13. Mechanical (●), Site Engineering Support Systems (a), and Water Features: swimming pool (b), lily pond (c), spray pool (d)

Buildings/Structures (Fig. PL-15)

A. Elon P. Stewart Standpipe:

The standpipe (Fig. PL-14a) has been a landmark for the park since its construction in 1925. The large round building (77'x60') is constructed of limestone and brick, in the Neoclassical architecture style. Limestone forms the base of the building with bricks laid

above this in a Flemish pattern.(5) As the brick meets the dome roof an arcaded corbel table surrounds the edge of the roof and cornice. The roof edge is surrounded with a wrought iron fence.

The building's entrance or portal is composed of limestone that rises from the base and culminates in a pediment above the door. Just above the pediment is an entablature (Fig. PL-14b) composed of an architrave and frieze. The architrave is a horizontal decorative band characteristic of Greek Doric buildings.

The frieze is decorated with shells, triglyphs and a head of Neptune - - god of the seas. Neptune's three pronged harpoons and tridents are located on either side and adjacent to the frieze.

In 1990, window modifications, painting, and graffiti removal were conducted.

B. Bath House:

The bath house was constructed in 1927 with a tile roof, white stucco exterior facade detailed with brick banding. Both the front and back of the building were effected with a wooden doorway flanked by light fixtures and an overhead semi-circular, paned glass window. Paneglass windows surrounded the building. A brick step served as the front stoop and separated



Figure PL-14a. Standpipe



Figure PL-14b. Entablature

the parking lot from the entrance of the building.

roof.

Alterations

During the 1970's, alterations to the bath house included a mural painted over the white stucco facade (Fig. PL-14c). A shingle roof replaced the tile roof. Windows surrounding the building have been boarded up and painted brown. Metal doors and overhead flood lights have replaced the original entrance.

The brick step was covered over with an asphalt ramp

was

plaque

local

flag

rain

C. Stone Fieldhouse:

The limestone building was constructed in 1933 (40' x 70') and is a one and a half story, hipped roof structure with segmented arched recessed bays. Alterations include a new shingle roof and aluminum soffits to replace the original wooden rafters. The pane glass windows have been boarded up and painted gray (Fig. PL-14d).

has

cond

dian

and

the

amp

path

Stone



Figure PL-14c. Bathhouse



Figure PL-14d. Fieldhouse

D. Small Limestone Building (shed):

The building (10'x 10') with a hipped roof, is adjacent to the rose garden. Alterations to the shed include a new roof and boarded windows.

E. Edmund M. Mills Rose Garden

Pavilion:

The octagonal shaped structure has a shallow sloped conical roof with a flared eave line and is topped by a finial. The pavilion sits in the center of the Edmund M. Mills Rose Garden and was dedicated in 1924. A bronze plaque commemorating the dedication is located in the center of a tile and flagstone floor. The wooden rafters painted green, support a pitched slate roof. The original green lattice was replaced in 1988 with a white criss-cross patterned lattice (Fig. PL-14e).



Figure I-14e. pavillon

F. Amphitheater:

The semi-circular shaped outdoor theater seats approximately 3,500 people. There are six stone faced, lawn covered terraces. The original wooden benches have been removed. The central lawn area is 100 feet in diameter and accessed by radiating grass steps or ramp that runs through the seating area. The perimeter of the amphitheater is effected by a cinder path and wrought iron picket fence. Stone stairs flank the stage.



Figure PL-14f Amphitheater

Under a stage (75'x30'x4.5') are dressing rooms, restrooms and storage. In 1988, alterations to the amphitheater

included improved lighting fixtures, fence and stage repairs (Fig. PL-14f).

G. Small Outbuilding (garage):

This small garage is a wood frame structure with paned windows and a brick foundation covered with stucco. The hipped roof and roof rafters culminate with a square louvered ventilator. The rafter construction displays an architectural detail common in the early 1900's. The building is badly deteriorated (Fig. PL-14g).

A 1926 aerial photo and an early map of the park shows greenhouses in the same location as the existing garage. The greenhouse foundation was a brick similar to that under the existing stucco.

Vertical slats rising from the foundation resemble the original greenhouse construction and the louvered ventilator was also present on the greenhouse.(Fig. PL-14h).

A foot print of the greenhouse complex indicate the front dimensions (30.3ft.) are similar to the existing garage foot print. The greenhouses were torn down in 1928 and a portion of this complex may have been altered into a small garage for the park.



Figure PL-14g. Outbuilding

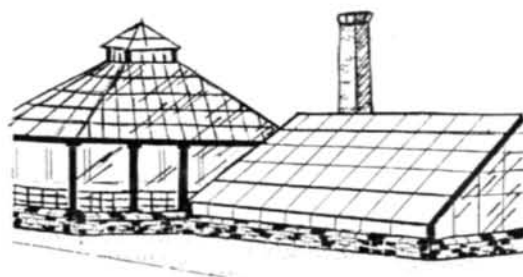


Figure PL-14h. Greenhouses

H. Wooden Shelters:

Two contemporary semi-open wood structures with hipped roofs exist in the park.

One is located in the picnic area next to the children's playground and the other one is adjacent to the stone fieldhouse. The flooring in each is a concrete slab.

I. Stone Entrance Piers:

There are two piers located at both the Madison Street and Greenwood entrance. These structures originally had light fixtures at the top but have been removed.

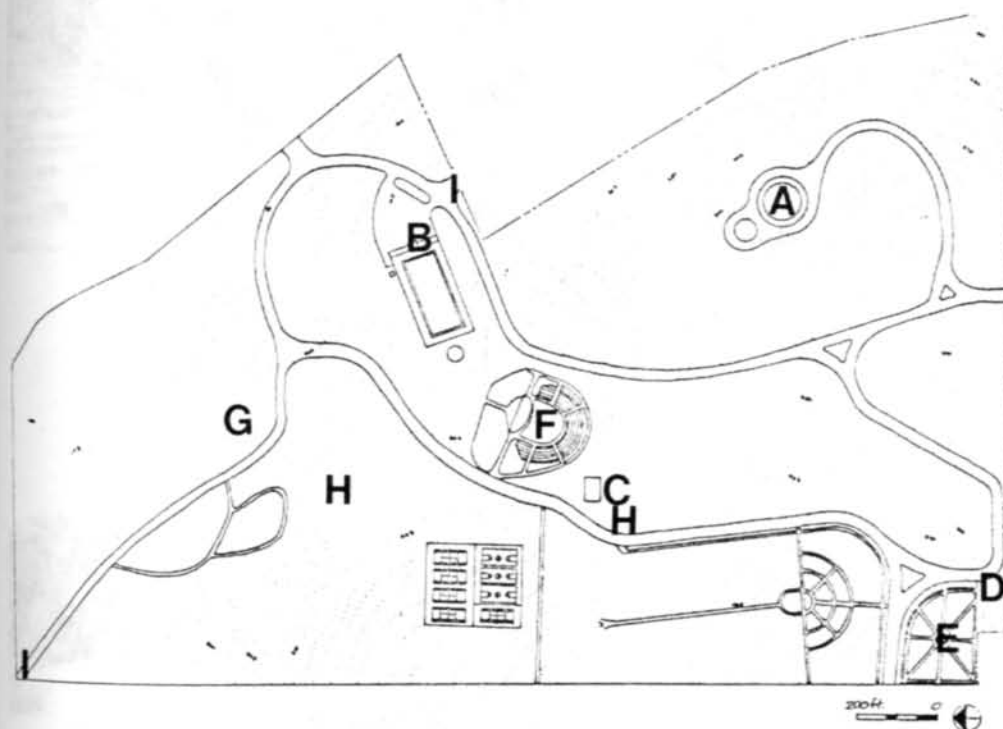


Figure PL-15. The location of buildings and structures in Thornden.

Furnishings/Objects(Fig. PL-16)

Seating throughout the park include contemporary wood benches, the original stone benches and a stone/wood seat. Unfortunately, many of these benches have been damaged or deteriorated. Picnic tables include the original stone and wood furniture and a contemporary picnic unit. Wood bleachers accommodate seating at the athletic field during football season. Park and recreation department trash receptacles are 50 gallon drums located throughout the park.



stone benches



wooden benches



stone/wooden seat



picnic tables

Figure PL-16. Park benches and picnic tables

Footnotes

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2. Giardina, Salvatore Jr. 1973. "Engineering Geology Of The Syracuse University Area." Syracuse, New York. Master's thesis in Geology. Syracuse University, Syracuse, N.Y. 80p.
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5. Richards, N.A. 1979. "The Vegetation Of Syracuse." Unpublished. 25pp.
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ASSESSMENT OF INTEGRITY

Seven Qualities Of Integrity

Preservation planning considers significant features which are important to Thornden Park's landscape design, history, and architecture while providing for the diverse needs of the community. Physical and visual characteristics from the period of significance that are extant in Thornden Park determine integrity. The Secretary of the Interior, National Park Service has specified qualities for evaluating integrity for historic or prehistoric resources. These qualities include:(1)

location: The original site where the historic resource was constructed. A relationship exists between the resource and the place as well as understanding why the property was created.

setting: Physical features (topography, vegetation, circulation, and manmade features that define the character of the site. Setting may relate to physical conditions and function but may include the surroundings and the orientation of the site to illustrate concepts of nature or aesthetic preferences.

design: Composition of natural and manmade features that determine the form, plan, space, structure and style of a resource. In the case of buildings and structures, the arrangement of spaces, fenestration patterns, textures and color of surface materials and ornamental details are important considerations. Spatial relationships among all the features in a landscape include rhythms created by circulation, the layout and materials. The design is based on needs, technologies, aesthetic preferences, attitudes and assumptions of people in a particular period of history.

feeling: The quality a historic resource has in evoking the aesthetic or historic sense of a past period of time. The presence of physical features conveys an image or perception to people of a historic period.

association: The relationship between the site and an event or person for which significance has been established.

materials: The elements used to create a particular pattern or configuration of an object, building or structure in a historic period. The choice and combination of materials retained on a site are important in evaluating integrity.

workmanship: The craftsmen's labor and skill in constructing historic resources. Assessing the workmanship can identify aesthetic principles of a historic period and individual, local, or regional applications of technological applications.

Six of these qualities have been used to assess the integrity of the district/neighborhood, landscape site, natural features, spatial organization, and landscape features in Thornden Park. The quality of association has not been used because the significance of Thornden Park is not related to an historic event or person and is not applicable. When one of the other six quality does not apply, it has been stated as not applicable (NA). The degree of change within each element has been classified as minor (authenticity evident) or major (authenticity not evident). For example, if the original size (dimensions) and form have been maintained then authenticity is evident.

The assessment of integrity classifies the park features as contributing or noncontributing to the significance of Thornden Park.

Contributing: A building, structure, or object that adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or b) it independently meets the National Register criteria. (2)

Noncontributing: A building, structure, or object that does not add to the historic architectural qualities, historic associations, or archeological

values for which a property is significant because a) it was not present during the period of significance, b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or c) it does not independently meet the National Register criteria.(3)

District/Neighborhood

location:	unaltered
setting:	NA
design:	major alterations-residential character (ownership vs renter); structure and style on west side of park.
feeling:	major alterations-reasons stated in design quality
materials:	minor alterations-changes to the west side buildings and street
workmanship:	minor alterations-reasons stated in materials quality

Landscape Site

location:	unaltered
setting:	minor alterations-west side of park
design:	unaltered
feeling:	minor alterations-reason stated in setting quality
materials:	minor alterations-reason stated in setting quality
workmanship:	minor alterations-reason stated in setting quality

Natural Features

Topography

location:	NA
setting:	NA
design:	unaltered
feeling:	unaltered
materials:	unaltered
workmanship:	unaltered

Soils

location:	unaltered
setting:	NA
design:	NA
feeling:	NA
materials:	unaltered
workmanship:	unaltered

Vegetation Cover Types

Parkland:

location:	minor alterations-decrease in cover type
setting:	minor alterations-changes in surrounding cover types
design:	A cover type for the significant period in the park landscape. Minor alterations include the loss of trees because of maturation and disease. The european beech, oak trees, and carolina poplars are important to the integrity of the park vegetation because they are remnant species from the estate and the park.
feeling:	unaltered
materials:	minor alterations-changes in species composition
workmanship:	NA

Lawn:

location:	minor alterations-increase cover in garden areas and loss of cover to forest type
setting:	minor alterations-changes in surrounding cover types
design:	NA
feeling:	unaltered
materials:	unaltered
workmanship:	NA

Linear:

location: unaltered

setting: minor alterations-changes in surrounding cover types

design: A cover type for the significant period in the park landscape. Vegetation planted along circulation routes and park perimeter have undergone minor alterations resulting from loss of individual trees/shrubs or changes in species composition. The trees along the road have been replaced with a different species. Shrubs along several walkways have been removed.

feeling: minor alterations-loss of vegetation

materials: minor alterations

workmanship: NA

Pinetum:

location: unaltered

setting: minor alterations-changes in surrounding cover types

design: A cover type for the significant period in the park landscape. The arboretum has minor alterations in the loss of individual specimens.

feeling: minor alterations-loss of specimens

materials: minor alterations-new species planted as replacements

workmanship: NA

Mass Plantings:

location: unaltered

setting: minor alterations.-changes in surrounding cover types

design: A cover type for the significant period in the park landscape has undergone major alterations. This cover type controlled erosion on the steep slopes

but has converted to a shrub/forest and forest type because of deferred maintenance. A different species composition is controlling erosion.

feeling: major alterations-forest cover type
 materials: major alterations-different plant species
 workmanship: NA

Gardens:

location: unaltered
 setting: minor alterations-changes in surrounding cover types

design: A cover type for the significant period in the park landscape. The Edmund M. Mills Rose Garden has maintained the spatial organization, form and structure with minor alterations to the planting beds and variety of roses. The perennial and lower rose garden had major alterations to the spatial organization, form, and structure. Plants, paths and lighting are missing from the lower rose garden. New plants and construction materials have been used to repair parts of the lily pond and rock garden.

feeling: major alterations-loss of lower rose garden and loss of flower beds in the perennial-rock garden
 materials: major alterations-different plant species
 workmanship: NA

Shrub/Forest:

non-contributing

Forest:

non-contributing

Spatial Organization

Parkland (estate lawn)

location: unaltered

setting: minor alterations-changes in vegetation and
 manmade features
 design: minor alterations-increase in canopy openings and
 change in form of canopy outline
 feeling: minor alterations-reasons stated in design
 materials: minor alterations-reasons stated in setting quality
 workmanship: minor alterations-reasons stated in setting quality

Azalea Walkway (estate willow thicket)

location: unaltered
 setting: minor alterations-changes in vegetation and
 manmade features
 design: minor alterations-overgrown vegetation and loss of
 rhododendrons have changed the form of the
 walkway.
 feeling: minor alterations-reasons stated in design quality
 materials: minor alterations-asphalt covers section of brick
 walkway and changes in vegetation composition
 workmanship: minor alterations- reasons stated in materials
 quality

Amphitheater (trout pond)

location: unaltered
 setting: unaltered
 design: minor alterations-changes in lighting style,
 vegetation, and loss of wooden benches
 feeling: minor alterations-reasons stated in design quality
 materials: minor alterations-reasons stated in design quality
 workmanship: minor alterations-reasons stated in design quality

Elon P. Stewart Standpipe/Drumlin Area

location: unaltered
 setting: minor alterations-changes in vegetation cover types
 design: minor alterations-changes in vegetation and
 manmade features
 feeling: minor alterations-reasons stated in design quality

materials: minor alterations-reasons stated in design quality
 workmanship: minor alterations-reasons stated in design quality

Lower Rose Garden

location: unaltered
 setting: minor alterations-changes in surrounding vegetation, circulation patterns, and manmade features
 design: major alterations. The formal garden style is now an informal open space. The flower beds, pathways, and views that defined the space no longer exist but the use is still passive.
 feeling: major alterations
 materials: major alterations
 workmanship: major alterations

Perennial - Rock Garden

location: unaltered
 setting: minor alterations-change in circulation patterns and manmade features
 design: minor alterations. The formal garden design has been replaced with an informal open space. Flower beds have been removed. Lily pond has been repaired. Stone steps and brick paths still define circulation.
 feeling: minor alterations-reasons stated in design quality
 materials: minor alterations-reasons stated in design quality
 workmanship: minor alterations-reasons stated in design quality

Edmund M. Mills Rose Garden

location: unaltered
 setting: minor alterations-changes in circulation patterns
 design: minor alterations-loss of rose beds in southern portion
 feeling: unaltered

materials: minor alterations-changes in plant varieties, use of landscape ties, and criss-cross lattice on pavillon
 workmanship: minor alterations-reasons stated in materials quality

Landscape Features

Recreational Facilities

Children's Playground:

location: unaltered
 setting: minor alterations-changes in vegetation
 design: major alterations-changes in layout of playground features, surfacing, and manmade features
 feeling: major alterations-reasons stated in design quality
 materials: major alterations-reasons stated in design quality
 workmanship: major alterations-reasons stated in design quality

Tennis Courts/Basketball Courts:

location: unaltered
 setting: minor alterations-changes in vegetation
 design: minor alterations-changes in surfacing
 feeling: minor alterations-reason stated in design quality
 materials: minor alterations-reason stated in design quality
 workmanship: minor alterations-reason stated in design quality

Athletic Fields:

location: unaltered
 design: major alterations-change in baseball form and plan to football layout
 setting: minor alterations-changes in vegetation, manmade features, and circulation patterns
 feeling: major alterations-reason stated in design quality
 materials: minor alterations-reason stated in design quality
 workmanship: minor alterations-reason stated in design quality

Circulation

Roads:

- location: unaltered
- setting: minor alterations-changes in vegetation and manmade features
- design: minor alterations-circulation patterns have been changed from two-way to one-way throughout the park
- feeling: minor alterations-reason stated in design quality
- materials: minor alterations-ashphalt paving surface and curbing
- workmanship: minor alterations-changes in materials and construction practices

Paths: (throughout the park)

- location: unaltered
- setting: minor alterations-changes in vegetation and manmade features
- design: minor alterations-along the tennis courts the original brick was covered with asphalt or missing and new brick was laid at the Ostrom Ave entrance
- feeling: minor alterations-reasons stated in design quality
- materials: minor alterations-new bricks and asphalt
- workmanship: minor alterations-reasons stated in design and materials qualities

Steps: (various locations)

- location: unaltered
- setting: minor alterations-changes in vegetation and manmade features
- design: minor alterations-changes in pattern
- feeling: minor alterations-reasons stated in design quality
- materials: minor alterations-new bricks replaced original bricks

workmanship: minor alterations-reasons stated in design and materials qualities

Parking Lot:

location: unaltered
 setting: minor alterations-changes in vegetation and manmade features
 design: unaltered
 feeling: minor alterations-reason stated in setting quality
 materials: unaltered
 workmanship: unaltered

Mechanical Systems

Lighting: (roadway throughout the park)

location: unaltered
 setting: minor alterations
 design: major alterations-replacing the original fixtures with contemporary fixtures.
 feeling: major alterations-the contemporary fixtures have a different quality and quantity of lighting.
 materials: major alterations-reasons stated in design quality
 workmanship: major alterations-reasons stated in design quality

(garden pathways throughout the park)

location: minor alterations-lights missing in the lower rose garden
 setting: minor alterations-changes in vegetation and manmade features
 design: minor alterations-lights missing in the lower rose garden and different fixtures in the Mills rose garden
 feeling: minor alterations-reasons stated in design quality
 materials: major alterations-different fixtures
 workmanship: NA

Site Engineering Support Systems

Retaining Walls:

location:	unaltered
setting:	minor alterations-changes in vegetation and manmade features
design:	unaltered
feeling:	unaltered
materials:	unaltered
workmanship:	unaltered

Water Features

Swimming Pool:

location:	unaltered
setting:	major alterations-changes to the bath house, installation of chain link fence, and changes to vegetation
design:	minor alterations-concrete walkway between shallow and deep end of pool
feeling:	minor alterations-reasons stated in setting and design qualities
materials:	minor alterations-surfacing materials for bottom of pool and concrete walkway
workmanship:	minor alterations-reasons stated in design and materials qualities

Lily Pond:

location:	unaltered
setting:	minor alterations-changes in vegetation and manmade features
design:	minor alterations-new water circulation system and interior surface of the pond
feeling:	minor alterations-reasons stated in design quality
materials:	minor alterations-reasons stated in design quality
workmanship:	minor alterations-reasons stated in design quality

Spray Pool:

Non-contributing

Buildings/Structures

Elon P. Stewart Standpipe:

location: unaltered

setting: minor alterations-forest and shrub-forest condition on the east side of the standpipe, loss of trees and shrubs in the island north of the standpipe, and changes in lighting fixtures along the park road.

design: minor alterations-repointing and roof repairs.

feeling: minor alterations-reasons stated in setting and design qualities

materials: minor alterations-reason stated in design quality

workmanship: minor alterations-reason stated in design quality

Bath House:

location: unaltered

setting: minor alterations-changes in vegetation and swimming pool

design: major alterations-entrances, step, windows around bath house have been changed. Arts and Crafts architectural detailing and the brick step with a herring bone pattern has been removed. A mural was painted over the stucco on the front of the building

feeling: major alterations-reasons stated in design quality

materials: minor alterations-contemporary light fixtures, metal doors, window slates, and paint

workmanship: major alterations-changes to original executed work of the building

Stone Fieldhouse:

location: unaltered

setting: minor alterations-changes in vegetation and manmade features

design: minor alterations-glass fenestration replaced with wooden window covers, new shingle roof, and original wooden rafters replaced with aluminum soffits

feeling: minor alterations-reasons stated in design quality

materials: minor alterations-reasons stated in design quality

workmanship: minor alterations-reasons stated in design quality

Small Limestone Building (shed):

location: unaltered

setting: minor alterations-loss of rose beds in the Edmund M. Mills rose garden, and changes in lighting fixtures along the road

design: minor alterations-glass fenestration replaced with wooden window covers

feeling: minor alterations-reason stated in design quality

materials: minor alterations-reason stated in design quality

workmanship: minor alterations-reason stated in design quality

Edmund M. Mills Rose Garden Pavillon:

location: unaltered

setting: minor alterations-loss of rose beds in the southern end of the garden and landscaping ties along perimeter of rose beds

design: minor alterations-a white painted criss cross lattice replaced the original grid patterned green colored lattice.

feeling: minor alterations-reason stated in design quality

materials: minor alterations-reason stated in design quality

workmanship: minor alterations-reason stated in design quality

Amphitheater:

location: unaltered

setting: minor alterations

design: minor alterations

feeling: unaltered

materials: minor alterations

workmanship: minor alterations

Wooden Shelters:

Non-contributing

Small Outbuilding (garage):

location: unaltered

setting: minor alterations

design: not known. The estate greenhouses may have been converted to the outbuilding.

feeling: not known

materials: not known

workmanship: not known

Stone Entrance Piers:

location: unaltered

setting: minor alterations

design: minor alterations

feeling: minor alterations

materials: minor alterations

workmanship: minor alterations

Furnishings/Objects

Stone Benches throughout the park:

location: unknown

setting: unknown

design: minor alterations

feeling: minor alterations

materials: minor alterations

workmanship: minor alterations

Picnic Tables:

location: unknown

setting: unknown

design: minor alterations

feeling: minor alterations

materials: minor alterations
workmanship: minor alterations

Chain Link Fencing:

Non-contributing

Exercise Stations:

Non-contributing

The significance of Thornden Park is supported by the integrity of existing park features but a more sensitive preservation approach is necessary for future changes. In general, the location of features have remained unaltered. Past changes in setting and design can be corrected by the information in historic maps and photos. These are valuable references for a more sensitive approach to the selection of materials and workmanship.

The following park features are contributing and non-contributing to the integrity:

CONTRIBUTING

Natural Features

topography
parkland
lawn
gardens
pinetum
linear vegetation

Spatial Organization

parkland
amphitheater
Elon P. Stewart standpipe area
Edmund M. Mills rose garden
tennis courts
athletic fields
azalea walkway
perennial/rock garden
lower rose garden

Landscape Features

circulation
pathways
stone steps

Site Engineering Support

stone walls (retaining)

Water Features

swimming pool

lily pond

Building/Structures

Elon P. Stewart standpipe

bath house

fieldhouse

limestone building (shed)

Edmund M. Mills pavillon

amphitheater

outbuilding (garage)

stone entry piers

NON-CONTRIBUTING

Building Features

wooden shelters

Site Features

landscaping ties

chain link fencing

contemporary benches and picnic tables

Natural Features

shrub/forest

forest

Future alterations to park features should consider the seven qualities of integrity and physical treatment of park features in order to sustain the significance of Thornden Park.

Mechanical Systems

lighting

Furnishings and Objects

stone/wood benches

picnic tables

Footnotes

1. Department of the Interior-National Park Service. 1982. "How To Apply The National Register Criteria For Evaluation." Bulletin No. 16-Supplement. 35-44pp.
2. Department of the Interior-National Park Service. 1986. "Guidelines For Completing National Register Of Historic Places Forms." Bulletin No. 16. 42p.

PARK USE

Thornden Park

The preservation planning process for this project has dealt with features of Thornden Park and needs to consider the uses for this historic resource. Preservation approaches for other parks such as, Central Park and the Emerald Necklace have recognized the original purposes for use continue to be valid in contemporary American cities. Changes in specific recreational preferences are part of the evolving park landscape.

Recreational areas in Thornden Park were originally designed and built to satisfy the various interests of the community. The swimming pool, tennis courts, and athletic fields promoted during the Reform Park period satisfied active recreation needs. The gardens, picnic area, and landscape amenities created an image of a beauty spot for relaxation. The amphitheater hosted many performances and gardens were settings for pageants. Supervised summer swimming and exercising programs were organized for children. The recreation facility and open space ideology affected the use and maintenance of the park. Today, contemporary needs for recreation and social attitudes continue to shape the Thornden landscape.

Thornden Park is one of the larger community parks in the city. Park visitors include neighborhood residents, Syracuse University and the SUNY-College of Environmental Science and Forestry students/faculty, and other Syracuse area residents. In order to determine changes in recreational preferences for these visitors, a user study was conducted between the months of May to August 1989.(1) A representative sample of 50 people participated in a user study. The results from the study were incorporated into the preservation planning process for this master's project and categorized according to the user groups.

The purpose of this study was to identify the public image of the park and user preferences for park issues (landscape modifications, maintenance, parking, recreation types, security, and historic quality). People were solicited from neighborhood meetings and park visits to

participate in the user study. Participants responded to a two part survey lasting approximately 30 minutes (Appendix D). The interviews were conducted in the participants homes or in the park. Participants were asked to affiliate themselves with one of the following user groups:

- Thornden Neighborhood Residents (TNR)

- Thornden Park Association (TPA)

- Syracuse Rose Society (RS)

- Syracuse University and SUNY-College of Environmental Science and Forestry students and faculty (SU/ESF)

- Syracuse area residents (SAR); and

- Others - this group resulted in members from the Westcott

- Neighborhood Association (WENA), the Southeast United

- Neighborhood Association (SEUNA), and a landscape architect from the Syracuse Department of Parks and Recreation.

Image

A person's use of available recreation resources influences their responses to a survey. Research into user perceptions of recreational opportunities identifies 'image' as an important element in a person's decision to use natural environments like urban parks.(2,3,4) Image is defined by descriptive (knowledge), affective (attitude, values, motivations), and connotative (behavioral expectations, interpretations) aspects. These aspects relate to an individual's decision making process and an image/behavior relationship which is a major theme in recreation research.(5)

This image/behavior relationship was incorporated into part one of the Thornden Park user study. Participants were asked to identify park features and their locations in order to assess the user's knowledge of the park. Attitudes and opinions about park issues (landscape modifications, maintenance, parking, recreation types, security, and historic quality) were evaluated through semantic differential word pairs. Image was further interpreted by open ended questions inquiring about reasons for use, suggestions for improvements, and overall impressions of the park.

Preferences

The second part of the survey, was a trade-off game method devised to identify user preferences for the park issues.(7) Each issue was graphically depicted by three standards (a,b,c,).(Appendix D) The participants were instructed to choose one standard from each issue that best displayed the existing conditions and then rate their choice on a numerical scale. The scale varied from poor [1] to excellent [5] quality. The next step was to distribute a given dollar amount (\$100) among the six park issues in order to achieve the best possible park condition. The trade-off game concept implied compromises or exchanges between and among multiple park issues and it reflected the need to sacrifice something in order to gain something else. Choices and priorities of the participants in the trade-off game must be established when resources are limited and all their needs and desires cannot be met.

In parts 1 and 2 of the survey, statistical means were calculated according to user groups for semantic differential word pairs and allocated dollar amounts. Semantic differential word pairs were rated with numerical values [1-5] for each park issue. The mean score was used to compare participants responses and the results were represented graphically.(Fig. PS-1) The open ended questions were evaluated for similar content analysis.

Results Of User Study

Part 1 Image

An important factor in the use of Thornden Park is the public image. The majority of the participants in this study described the park as an attractive urban green space albeit poorly maintained with multiple recreational uses for various community groups. They perceive Thornden Park as an asset to the community and an important historic landmark for Syracuse.

Individuals use the park for a variety of activities including both active and passive recreation. Swimming, picnicking, walking, and playing tennis/basketball were commonly identified uses of the park. Reasons

cited for not using the park included noise, safety, lack of programmed activities, and distance from home.

A negative impression of the park image described by participants was maintenance. Descriptive terms used by participants included 'neglected', 'ignored', and 'poorly maintained'. The most frequently requested improvements were landscape maintenance, park programmed activities, benches for relaxing, better vehicular control and increased security. Similar attitudes and opinions were indicated in responses to the semantic word differentials.(Fig. PS-1)

Part 2 Trade-Off Game (Appendix E)

Landscape Modifications and Maintenance:

These two issues received the most allocated money from participants, reflecting their image of the park as poorly maintained and a desire to improve existing conditions.(Fig. PS-2,3,4) Healthy trees scattered throughout the landscape, floral displays, grass covered areas, water features, and open views were preferred landscape amenities indicated by the participants. Also, maintenance of park features was a high priority for the majority of the participants. The visual appearance and function of built facilities and natural features were very important to park users.

Parking:

In contrast, parking was considered a low priority in the trade-off game budget allocation. Participants viewed parking as readily available throughout the park regardless of the "No Parking" signs alongside the roads and a parking lot. For this reason, many participants did not want to see additional parking surfaces because they felt it alters the landscape features in the park. A trade-off was identified by the preferences for the park landscape over additional parking.

Recreation Type:

Passive as well as active recreational interest were the reasons participants use the park. Recreational facilities, such as the swimming pool, basketball courts, and athletic fields, are used extensively by surveyed people.

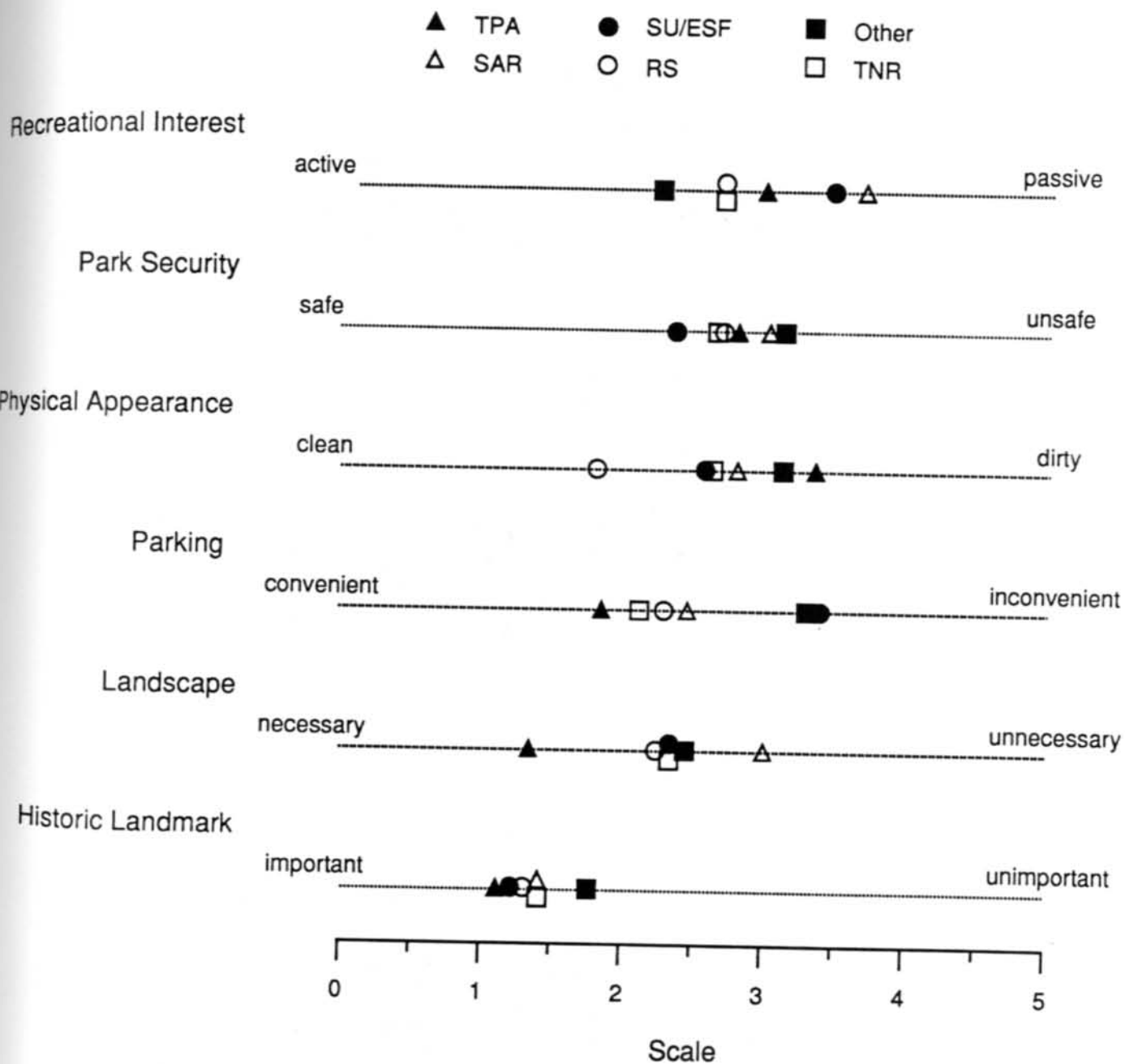


Figure PS-1 Image-Part 1 of user analysis indicating group response to semantic differentials.

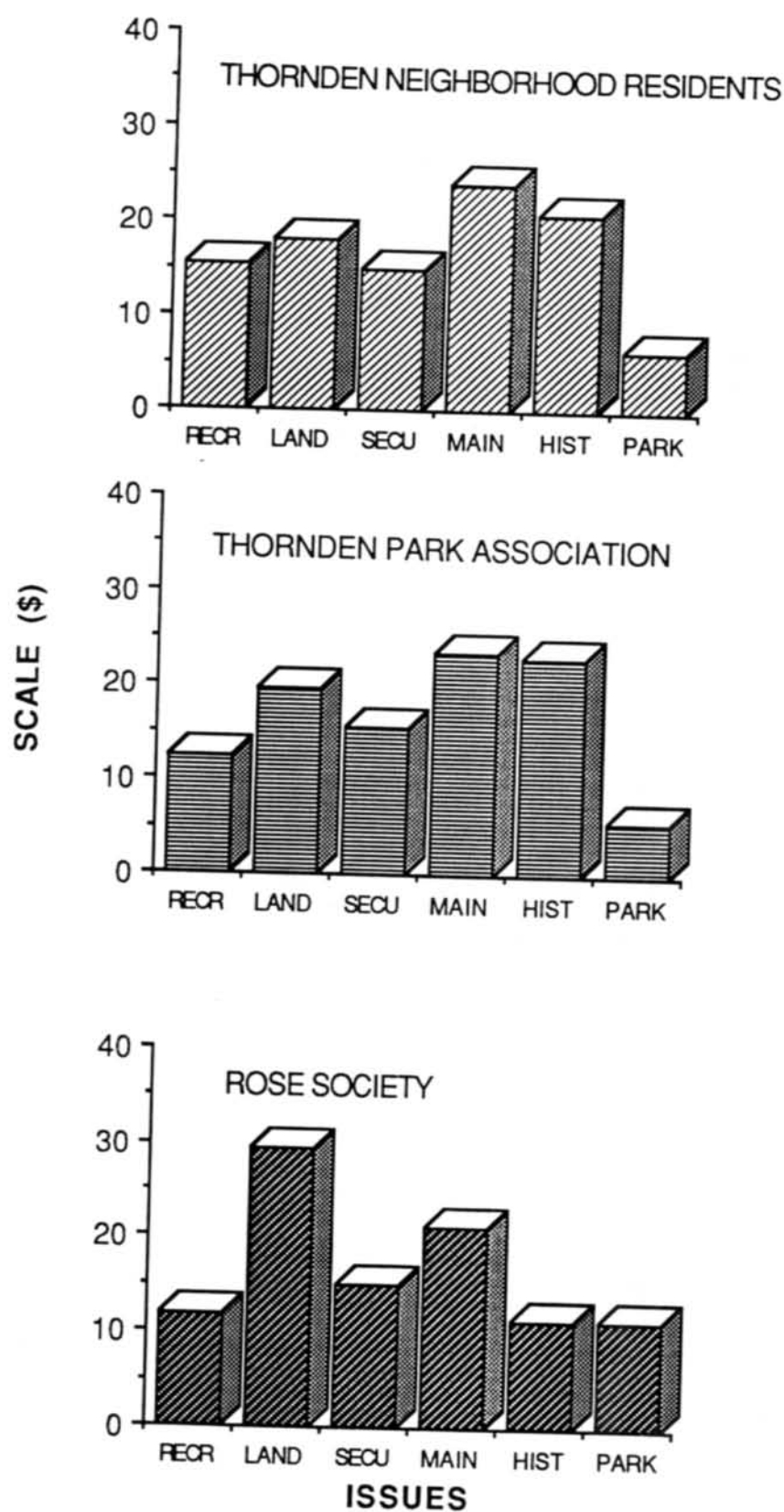


Figure PS-2 Dollar allocations for Trade-Off game-Part 2 according to user groups.

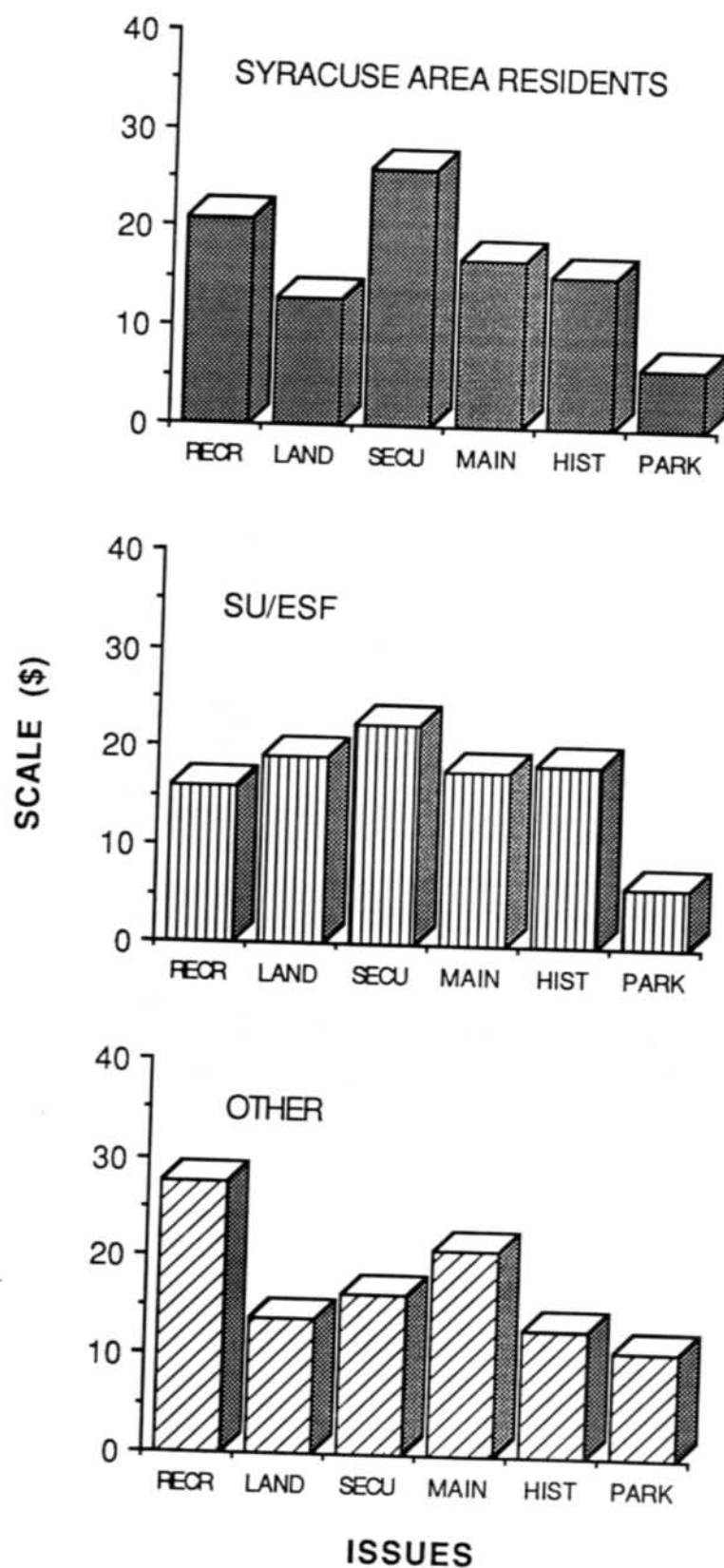


Figure PS-3 Dollar allocations for Trade-Off game-Part 2 according to user groups.

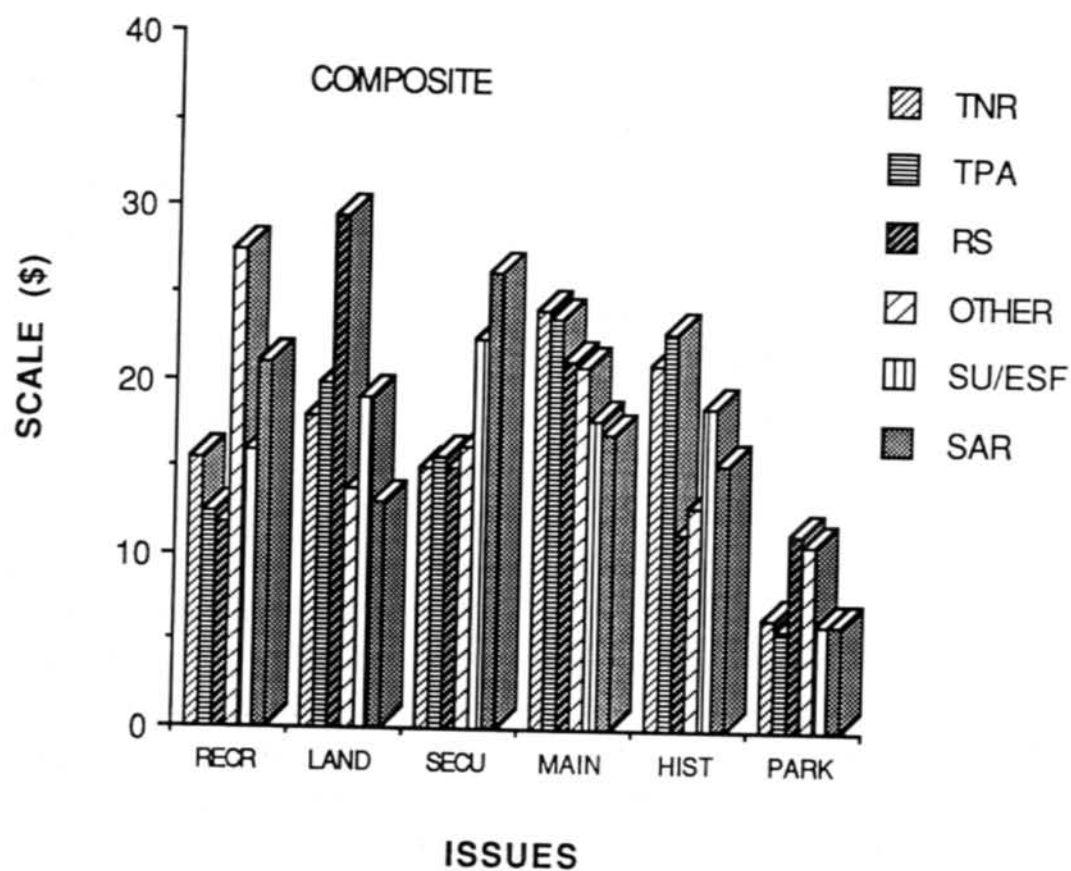


Figure PS-4 Trade-Off game budget allocation for park issues.

The passive forms of recreation are equally important to these users. Vistas of the city invite people to sit and unwind from daily stress-related activities. Families gather for picnics and students enjoy studying in a quiet, peaceful setting. Participants expressed a need to improve benches, picnic tables, programmed cultural activities, and winter sports. The trade-off game budget allocation displayed a user preference for diverse settings that have both attractive scenery and recreational areas.

Security

Newspaper articles have played a role in the public's image of Thornden Park. During the 1960's and 1970's, publicized muggings and rapes portrayed an image of the park as not being a safe place. The publicized incidents affected the use/nonuse of the park by area residents.

Participants living outside the neighborhood appeared to perceive a park security problem. The neighborhood residents taking part in the user analysis and who frequently use the park had not encountered any negative personal experiences and have changed their image to a more positive one. The use of a place builds upon an individual's image which changes due to repeated use.(7) This cycle seems pertinent to the security issue in Thornden Park. In addition, the frequent users may have developed specific behaviors which were perceived as reducing the risk of danger while in the park; e.g., staying away from the park after dark, locking car doors, and confining their activities to open areas. Participants in all the groups expressed a desire for visual signs of authority, proper lighting and open views which suggests the perceived risk factor is still a part of park use.

Historic Quality:

Thornden Park is a unique source of pride in Syracuse and is a part of civic history. Historic photos and personal accounts of the beautiful ornamental gardens and numerous tree species in Thornden have fueled people's interest in the historic significance and character of the park. The maintenance of the Edmund M. Mills Rose Garden, herb garden, and pinetum by various community groups are all indications of interest in preserving the park's historic features. Allocated dollar amounts in the trade-off

game for this park issue further exemplifies the importance of preservation as a park issue.

Past and present Thornden Park uses continue to reflect a need for a variety of recreation opportunities (passive/active). Active recreational facilities continue to attract people to the park. Passive forms of recreation are equally important and need to be improved. Contemporary user images and preferences can contribute to the preservation planning process by identifying the value of sustaining diverse recreational opportunities and landscape amenities.

Footnotes

1. Zipperer, Constance. 1989. "Thornden Park: A Study Of Park Use." Unpublished student project. 40pp.
2. Mercer, D. 1971. "The Role Of Perception In The Recreation Experience: A Review and Discussion." *Journal of Leisure Research* vol 3. 161-176pp.
3. Hatry, H.P., Blai, L.H., Fisk, D.M., Hale, J.R. Jr., and Schaenman, P.S. 1977. "How Effective Are Your Community Services?" *Procedures for Monitoring the Effectiveness of Municipal Services*. Urban Institute, Washington D.C. 318-320pp.
4. Kaplan, Rachel. 1982. "The Green Experience." *Humanscape*. Library of Congress. 186-193pp.
5. Hayward, D. Geoffrey, and W.H. Weitzer. 1984. "The Publics Image Of Urban Parks: Past Amenity, Present Ambivalence, Uncertain Future." *Urban Ecology* vol.8. 243-268pp.
6. Robinson, Ira M. 1987. "Trade-Off Games As A Research Tool For Environmental Design." In *Methods In Environmental And Behavioral Research*. Robert B. Bechtel, R.W. Marans, and W. Michelson ed. Van Nostrand and Reinhold Company Inc. 120-161pp.
7. Hayward, D. Geoffrey, and W.H. Weitzer. 1984. "The Publics Image Of Urban Parks: Past Amenity, Present Ambivalence, Uncertain Future." *Urban Ecology* vol.8. 243-268pp.

PRESERVATION GUIDELINES

Treatment Of A Designed Historic Landscape

The significance and integrity of Thornden Park should be reinforced through appropriate physical treatment of the park and its specific features. The Department of the Interior, through the National Park Service, has defined seven physical treatments and standards for the preservation of significant historic resources. The treatments (Acquisition, Protection, Stabilization, Preservation, Rehabilitation, Restoration, and Reconstruction) emphasize buildings and related architectural issues and may not in all cases adequately address issues regarding designed historic landscapes.(1) Modifications of language have been proposed for the seven physical treatments and standards that address designed historic landscapes.(2) For this project, the proposed modifications for the seven treatments will be used as preservation guidelines for Thornden Park. These include:

Acquisition: the act or process of acquiring fee title or interest other than fee title of real property (including acquisition of development rights, easements, view sheds or remainder interest).(3)

Protection - the act or process of applying measures designed to affect the physical condition of a resource by defending or guarding it from deterioration, loss or attack or to cover or shield the resource from danger or injury. Such treatment is generally of a temporary nature and anticipates future historic preservation treatment.(4)

Stabilization - the act or process of applying measures designed to remove or prevent debilitating and re-establish stability of an unsafe or deteriorated resource while maintaining the resource's essential historic character as it exists at present.(5)

Preservation - the act or process of applying measures to sustain the existing integrity of a resource. Preservation may include initial stabilization work, where necessary, as well as ongoing maintenance of a resource.(6)

Rehabilitation - the act or process of returning a resource to a state of utility through repair or alteration which makes possible an efficient contemporary use while preserving those features which are important in defining the resource's historic significance.(7)

Restoration - the act or process of accurately recovering the form and details of a resource and its environment as it appeared at a particular period of time or as intended by its original design. Such treatment can be achieved by removal of elements outside of the period of significance or no longer existing as intended by original design; or by the replacement in-kind of missing or altered features from the period of significance or central to the original executed design.(8)

Reconstruction - the act or process of reproducing by new construction, installation or reclamation the exact form and detail of a non-extant historic resource, or any part thereof, as it appeared at a specific period of time or as intended by its original executed design.(9)

Thornden Park Treatment

Rehabilitation should be the physical treatment for Thornden Park as a designed historic landscape. The original planning and design of Thornden Park was based on distinctive landform, spatial relationships, and landscape features with definite aesthetic and functional premises. Topography influenced circulation patterns. Pathways and roads connected passive and active recreational areas within the park. An allee of trees suggested a movement that was sustained by mass plantings of evergreens and deciduous shrubs. The formal garden designs of the Edmund M. Mills Rose Garden, Lower Rose Garden, and Perennial/Rock

Garden displayed geometric patterns of color and textural variety. The highly manicured gardens captured visual interest and sustained passive use. These features should be retained and repaired in order to sustain the integrity and significance of Thornden Park.

Every reasonable effort should be made to salvage original materials of the historic features in the landscape. Features that are deteriorated or damaged should be repaired with in-kind materials. When the retention of the historic material or in-kind replacement is prohibited, a compatible material that duplicates the composition, design, color, texture, and visual qualities are acceptable. The duplication of historic features with compatible materials should be substantiated with documented evidence (photos, maps, text) and not be based on conjectural design.

Vistas in Thornden Park were developed to focus attention and direct people to a point of architectural (e.g. standpipe) or recreational (e.g. swimming pool) interest. Series of planned sequential movement offered the park user changes in light, visual patterns, and expanding/contracting views throughout the park. The views and vistas that are important to the historic character of Thornden Park should be retained and/or repaired.

Any non-contributing features within Thornden Park that detract from its historic character should be removed. New recreational uses designed and constructed in the landscape should be compatible with the contributing historic features and character of the original design intent. Careful consideration should be given to scale, form, design, materials, texture, and color of the new feature. Written and graphic documentation should be prepared in order to augment the historic record of Thornden Park.

The historic features within the park have undergone varying degrees of change and should be maintained with specific treatments:

Landscape Site

Treatment: Preservation

Maintain the existing size, form, and boundaries of the park.

Natural Features

Topography

Treatment: Preservation

Maintain the existing landforms (drumlin, ravine, rolling hills and level ground). The use of destructive techniques, such as archeological excavation, should be limited to provide sufficient information for research, interpretation and management needs.

Soils

Treatment: Preservation

Maintain existing soil composition and structure.

Vegetation Cover Types

Parkland:

Treatment: Preservation

Maintain, by cultural practices, the older, most unique or significant trees in the parkland (ie. european beech, carolina poplar, and the oak trees).

Maintain the existing form and integrity of the parkland trees.

Maintain the informal landscape design with the broadly rolling topography and groves of trees.

Lawn:

Treatment: Rehabilitation

Repair lawn cover throughout the park by identifying the use of the area, site conditions and required maintenance practices.

Linear:

Treatment: Restoration

Recover the allee of trees along the park road by replacing the overmature and declining trees with even age well-grown nursery stock.

Replace shrubs and perennials used along pathways to strengthen the movement through the landscape.

Pinetum:

Treatment: Rehabilitation

Repair the area with compatible conifer species.

Mass Plantings:

Treatment: Preservation

Maintain existing vegetation which is more suited to site conditions and establish a minimum maintenance situation that prevents severe erosion.

Gardens:

Treatment: See Spatial Organization.

Spatial Organization**Parkland (estate lawn):**

Treatment: Preservation

Maintain lawn ground cover as base plane, tree cover as vertical and overhead planes.

Azalea Walkway (estate willow thicket):

Treatment: Rehabilitation

Repair the secondary entrance and walkway that links the surrounding neighborhood and directs movement to areas within the park. The brick path should be repaired and replacement of in-kind bricks.

Retain the existing evergreens and deciduous plants. Mature vegetation has created a tranquil nature-like setting. The expanded vertical scale produced by the vegetation has formed a more pronounced delineation of space that is in keeping with the original design intent.

Amphitheater (trout pond):

Treatment: Preservation

Maintain the existing landform and vegetation that creates the vertical enclosure of the space.

Maintain the inward orientation with the extant evergreen plantings around the perimeter.

Maintain the existing stone walls and grass terraces that define the ground plane in the arena.

Maintain stone entrance piers, wrought iron fence, stone seating edges, and circulation patterns that reinforce historic and existing spatial quality.

Maintain stage, dressing rooms and lights.

Elon P. Stewart Standpipe/Drumlin Area:

Treatment: Rehabilitation

Repair plantings throughout the area. Selection of in-kind plants should be based on design/plant characteristics (color, form, texture).

Lower Rose Garden:

Treatment: Protection followed by Restoration

Secure the location of the lower rose garden and remaining historic cedars and stone steps.

Recover the original circulation patterns for the garden

Restore the spatial arrangement of planting beds and turf. Several varieties used during the period of significance can be identified from photos and should be replanted. Selection of in-kind plants should be based on design/plant characteristics (color, form, texture).

Restore stone benches.

Perennial-Rock Garden:

Treatment: Restoration

Recover the radial and axial circulation pattern beginning at the Perennial garden, along the pinetum/herb garden and terminating at both the park road and Ostrom Avenue.

Restore the spatial arrangement of planting beds and turf surrounding the rebuilt lily pond. Ground beds of perennials and annuals were colorful displays of horticultural interest surrounded by lawn in a semi circular design. Several varieties used during the period of significance can be identified from photos and should be replanted. Selection of additional plants should be based on design/plant characteristics (color, form, texture).

Replant cedars at the corners of the beds to frame views of the distant lower rose garden and Mills rose garden.

Replant the vegetation surrounding the sitting area above the lily pond.

Replant historic or in-kind vegetation along the path to improve scenic vistas of downtown Syracuse and the Onondaga valley and direct movement through the pinetum and past the herb garden.

Edmund M. Mills Rose Garden:

Treatment: Preservation

Retain the existing design of the circulation patterns, planting beds, lawn cover and iron trellis walkway.

Maintain the inward orientation by use of the pavillon as a focal point.

Improve planting bed edges by removing incompatible materials (i.e. landscape timbers).

Maintain the existing rose bushes in the Mills Rose Garden.

Landscape Features

Recreational Facilities

Children's Playground:

Treatment: Preservation

Maintain existing location of the playground.

Tennis/Basketball Courts:

Treatment: Preservation

Retain the existing dimensions (200' x 235'), basketball and tennis use of the courts, and construction materials.

Athletic Fields:

Treatment: Rehabilitation

Repair the condition and public access for the football field. The use of the field for Autumn league games has restricted public access to the facility and caused traffic problems along the park road.

Circulation

Road:

Treatment: Preservation

Maintain the existing road alignment, curbing, and road width. Wooden barriers are non-contributing and should be removed.

Paths: (throughout the park)

Treatment: Preservation

Maintain the design of existing pathways, and paving materials (brick, asphalt and concrete).

Treatment: Reconstruction

Reproduce missing sections of brick pathways with in-kind materials. The composition, color, and texture of new materials should duplicate the old bricks and extant pattern.

Steps:

Treatment: Preservation

Maintain the existing size and design of the various brick and stone steps throughout the park.

Parking Lot:

Treatment: Preservation

Maintain the materials and size of the existing lot in front of the bath house.

Mechanical Features

Lighting: (roadway throughout the park)

Treatment: Reconstruction

Reproduce fixtures with historic prototypes when the existing cobra head lights need to be replaced.

the fixtures should duplicate the design, color, material, and lighting quality of the original light.

Lighting: (paths)

Treatment: Reconstruction

Reproduce the historic light fixtures in the Amphitheater, Lower Rose Garden and Edmund M. Mills Rose Garden. The fixtures should duplicate the design, color, material, lighting quality and location of the original lights.

Site Engineered Support System

Retaining Walls:

Treatment: Preservation and Restoration (Figure PG-1)

Maintain the existing form, and materials of the walls across from the outbuilding and along Madison Avenue.

Restore missing portions of the stone wall across from the standpipe with the same stone material. Match the size, scale, and color of materials.

Water Features

Swimming Pool:

Treatment: Preservation

Maintain the existing olympic size, depth, fence, and concrete/brick apron around the pool.

Lily Pond:

Treatment: Preservation

Maintain existing pond (form, scale, water depth).

Buildings/Structures

Elon P. Stewart Standpipe:

Treatment: Preservation

Maintain the existing architecture, dome roof and Flemish brick pattern of the building.

Bath House:

Treatment: Rehabilitation

Repair the condition of the bath house using the 1927 architectural drawings from the Department of Parks and Recreation.

Stone Fieldhouse:

Treatment: Rehabilitation

Repair architectural elements (windows, rafters) of the exterior by using drawings and photos of the building during the period of significance.

Small Limestone Building (shed):

Treatment: Preservation

Maintain the existing use, size, roof windows, and masonry of the building.

Edmund M. Mills Rose Garden Pavillon:

Treatment: Restoration

Replicate the original lattice design and green paint color.

Maintain the existing octagon form, and materials (slate, wood, tile) of the pavillon.

Amphitheater:

Treatment: Preservation

See Spatial Organization description

Small Outbuilding (garage):

Treatment: Protection

Safeguard the physical condition of the structure until additional archival research is conducted to determine historic origin and function of the building.

Reestablish structural stability by reinforcement of walls and roof and arrest deterioration of wood construction which is leading to additional structural failure.

Prevent destruction or alteration of historic or archeologic materials.

Stone Entry Piers:

Treatment: Rehabilitation

Replace missing lightswith in-kind fixtures.

Furnishings/Objects

Benches And Picnic Tables:

Treatment: Rehabilitation

Repair the remaining historic stone benches and picnic tables.

Replace contemporary benches and picnic tables with historic furnishings that are compatible with the size, scale, color, and form of the original ones.

Footnotes

1. Department of the Interior, National Park Service. 1983. "Federal Register Part IV." Vol. 48 No. 190. 24 pp.
2. Peters, Christine. 1990. "The Physical Treatment Of Cultural and Historic Resources: Guidelines for Rehabilitating Designed Historic Landscapes". Master's thesis in Landscape Architecture. SUNY-College of Environmental Science and Forestry. Syracuse, New York. 27p.
3. IBID. 36p.
4. IBID. 37p.
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6. IBID. 42p.
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8. IBID. 47p.
9. IBID. 50p

CONCLUSIONS

The Next Step

Thornden Park is a significant historic and contemporary urban component in Syracuse, New York. The community recognizes the value of this park and has worked to protect the character of the designed historic landscape through preservation planning. This master's project has continued the preservation effort by developing the historic context of the resource, identifying the significance, gathering detailed information to assess integrity and recommending treatment for the preservation of the park and its features.

The next step in this preservation effort should be to formulate a management and maintenance plan for Thornden Park. Issues relating to the ecology of the landscape, recreation, staffing and day-to-day activities need to be addressed in such a plan. A management strategy, for example, could systematically project the rate of tree loss and determine replacement needs. An ongoing maintenance program should be implemented to arrest the deterioration of park features due to climatic conditions, insects, botanical (plants), and biological (bacteria, fungi) causes of decay. The maintenance of building and structural features should be done with the help of preservation architects and professionals.

The information from the management and maintenance plan in conjunction with this master's project can develop a master plan for future planning and design of a valuable historic resource.

APPENDIX A

THE HISTORIC PRESERVATION MOVEMENT IN AMERICA (1)

The foundation of historic preservation was established in patriotic values of the private citizenry. Early preservation efforts by the Mount Vernon Ladies Association of the Union focused on sites associated with men like George Washington or events important in the history of the nation. Other organizations such as The American Scenic and Historic Preservation Society of 1895 identified early on, criteria important in the relationship between historic association and antiquity in distinguishing the preservation of sights and scenery. In the early 20th century preservation efforts shifted from sites and scenes of historic significance to architectural excellence. The Society for the Preservation of New England Antiquities worked to preserve single buildings based on valued methods of construction, style or renowned designers. The Williamsburg Foundation in 1926 was responsible for the first large scale restoration, reconstruction, and interpretation of a historic community - Williamsburg, Virginia. This act of preservation introduced the relationship of buildings to the landscape.

The Federal Government took an active role in the preservation movement with the Antiquity Act of 1906. This legislation set a criterion for preservation, that relics of no associative value and with little patriotic inspiration could also qualify for preservation on the grounds of antiquity and scientific interest alone. Later, the Historic Sites Act of 1935 would become a prominent factor in the expansion of preservation activities at local state and federal levels. Under this latter act, there is emphasis on inventorying and documenting sites. These accepted sites would be operated and maintained by the National Park Service for the educational benefit of the public. Under the Historic Sites Act, the Secretary of the Interior has the power to designate national sites, buildings and objects. Later, under the auspice of the National Park Service, the Historic Landmark Program was given the responsibility to devise a list of standards used to evaluate national landmarks. The Secretary of the Interior Standards stress significance and integrity of the sites, buildings, and objects being nominated.

As all levels of government and private organizations became more active in preservation issues, the need arose for a coordinating group that would oversee public and private preservation programs. In 1949, Congress chartered the National Trust for Historic Preservation. The trust would be publicly funded and privately managed to facilitate

public participation in historic preservation. The National Trust brought cohesion to the fragmented field of historic preservation.

In 1966, the National Historic Preservation Act stated that preservation should play a more far-reaching role in the enhancement of the total American environment. The process called for an inventory of landmarks and the maintenance of a National Register of Historic Places. Federal grants were available to state and local governments for the preparation of surveys and preservation plans. There would be protection for landmarks from federally financed construction projects. This act implemented the work of the National Trust for Historic Preservation and created an Advisory Council on Historic Preservation. In addition, the act expanded the scope of historic preservation to include districts, sites, objects, structures and buildings of local, state and regional importance national significance.

HISTORIC LANDSCAPE PRESERVATION

The preservation movement was initiated with the restoration of Williamsburg and later articulated in the criteria for preservation developed for historic districts in the 1930's. The National Environmental Protection Act of 1969 was a major piece of legislation whose purpose was:

"to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man."(2)

The law specified a systematic, interdisciplinary approach to planning, which utilized the environmental impact statement to assess the efforts of a proposed federal action on the environment. The Executive Order 11593, "Protection and Enhancement of the Cultural Environment" followed in 1971. With this legislation, the federal government further emphasized its leadership in preserving, restoring and maintaining historical and cultural environments in the United States. The National Environmental Protection Act and the Executive Order 11593 established the value of historic landscapes and through the eyes of a preservationist there was finally

" a realization on the part of the people of the United States that they have a past worth preserving, a tradition worth continuing, and that there are man-created works of art in scenery, in landscapes and in urbanism, as well as in architecture, which must not be allowed to belost to the generations to come."(3)

Historic landscapes have periods, styles, and functions just as buildings and historical events. Characteristics of these landscapes include man-made, natural, social and aesthetic features all worthy of preservation.

Within a broad range of historic landscapes resources, unlike an ethnic community, farmstead or battlefield, a designed landscape has significance as a design or work of art. The landscape is consciously designed or laid out by a master gardener, landscape architect, architect or horticulturist to a specific design principle. It may also be designed by an owner or other amateur using a historical association with a significant person, trend, or event in landscape gardening or landscape architecture; or a significant relationship to the theory or practice of landscape architecture. Types of designed historic landscapes identified by the National Register include:(4)

- small residential grounds
- estate or plantation grounds(including a farm where the primary significance is as a landscape design and not as historic agriculture)
- arboreta, botanical and display gardens
- zoological gardens and parks
- church yards and cemeteries
- monuments and memorial grounds
- plaza/square/green/mall or other public spaces
- campus and institutional grounds
- city planning or civic design
- subdivisions and planned communities/resorts
- grounds designed or developed for outdoor recreation and/or sports activities such as country clubs, golf courses, tennis courts, bowling greens, bridle trails, stadiums, ball parks and racetracks that are not part of a unit listed above.
- fair and exhibition grounds
- parkways, drives and trails

bodies of water and fountains (considered as an independent component and not as part of a larger design scheme).

Footnotes

1. Hix, Alma. 1976. "A Comprehensive View Of Historic Preservation." Master's thesis in Landscape Architecture. SUNY-Environmental Science and Forestry. Syracuse, New York. 156pp.
2. IBID
3. IBID
4. U.S. Department of the Interior, National Park Service. 1981. "National Register: How To Evaluate And Nominate Designed Historic Landscapes." Bulletin No.18.

APPENDIX B

ESTATE LANDSCAPE ANALYSIS: (1)

1922 field survey books from the Syracuse Department of Parks and Recreation were reviewed in January of 1989 to identify tree species growing on the estate landscape. These records indicate that the sampling included trees greater than or equal to 7.6 inches diameter breast height (dbh). A composite of these data and the 1926 park cover map provide an insight into the initial structure and composition of species in the park. From the 1922 park survey, dominant trees, classified to the genus level, consisted of elms (Ulmus spp.) (44.6%) and maples (Acer spp.) (13.8%) (Table 1). Other important trees included willow (Salix spp.) (6.5%), spruce (Picea spp.) (6.4%) along with several orchard species (10.0%)--pear (Prunus spp.), cherry (Prunus spp.), and apple (Malus spp.).

Information obtained from the 1922 data indicates three distinct age classes: the large mean diameter values of the oaks (Quercus spp.), the smaller diameters of elms and maples (15.0 and 14.0 in. dbh, respectively) and the planted species with average diameters less than 11 inches. The diameter distribution of the elms and maples implies that the entire site, except the oaks, was cleared around the turn of the 18th century. The large diameters of the oaks indicate that they were retained on site during the initial stages of clearing.

The planted species, located in the northeast area of the estate-- locust, pines, hemlock, tamarack and hawthorn-- with their smaller average diameters suggest these trees were planted on the site around the mid-1800's. A european beech (Fagus sylvatica pendula) was planted in 1892 by Major Davis. Another set of planted species includes orchard species and their diameters indicated that two age classes of orchards occurred on the property in 1922. The older orchard, represented by large apple trees (40 in. dbh), suggests that they were probably planted during the early 1800's. The second orchard consisting of pears and cherries (8-14 in. dbh) indicate they were planted during the mid- to late-1800's.

The 1922 survey included information about a willow thicket on the property. During the turn of the twentieth century, willow thickets were grown in various locations in the county to produce sprigs for basket weaving and for animal fodder. Presumably, the thicket in Thornden was used for similar purposes. Also, large willows (mean dbh of > 30 in.) occurred as a linear strip along Beech Street that possibly buffered the estate from the adjacent neighborhood.

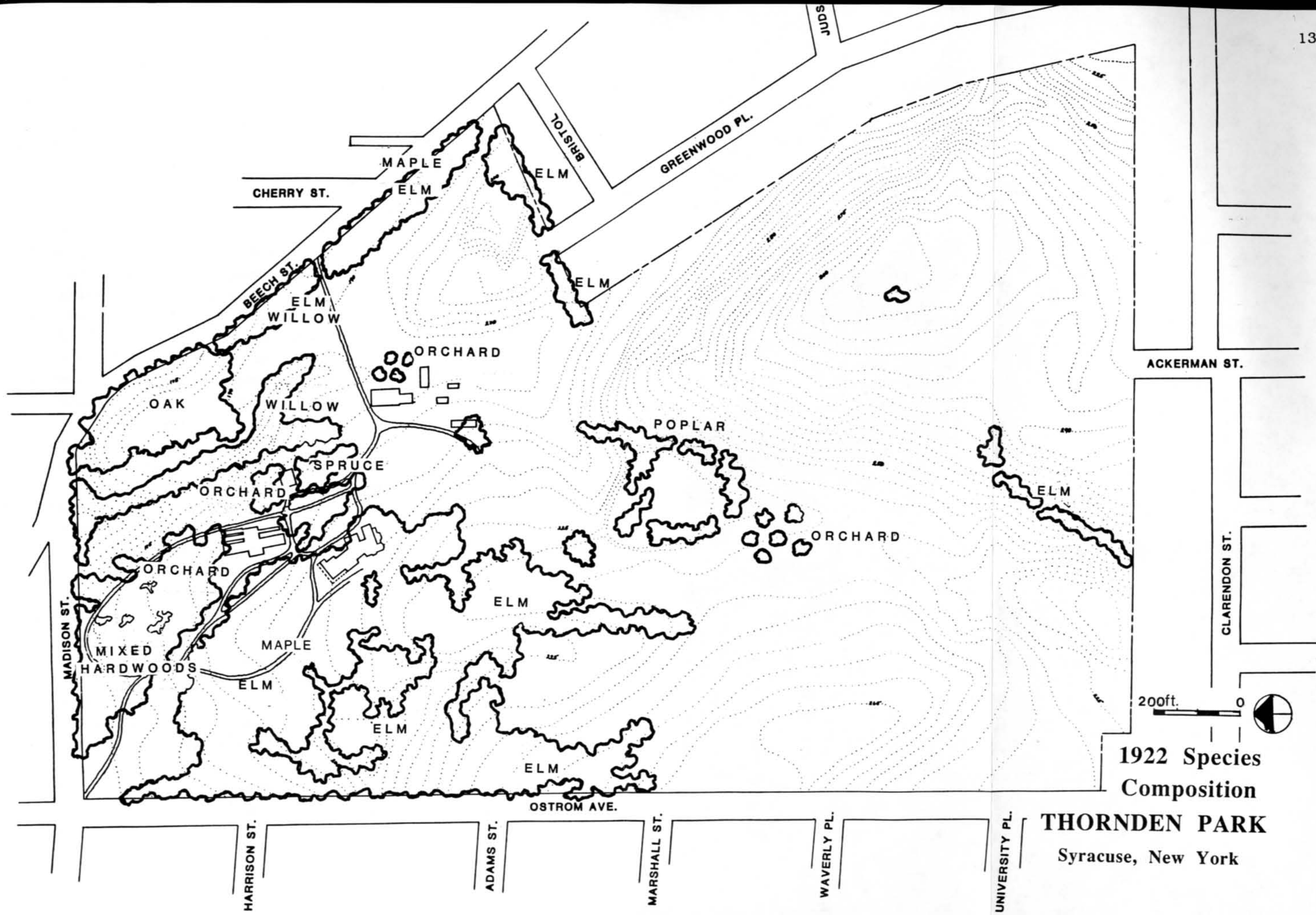
In contrast, groves of trees on the Davis estate were not disturbed. These include the european beech, the patch of oaks, and Carolina popular remained a valued park feature. Today, these groves of trees are relics of the vegetation present on the estate.

Footnotes

1. Syracuse Department of Parks and Recreation. 1922. "Thornden Park Field Survey Book A".

Table1. Total density and mean diameter (dbh) of measured species within Thorden Park in 1922 (Fieldbook A, City of Syracuse Dept. Parks and Recreation).

Species	Density		Diameter (dbh inches)
	Total	Percent	
Elm	499	44.63	15.0
Maple	155	13.86	13.9
Willow	73	6.53	22.0
Spruce	71	6.35	10.0
Cherry	50	4.47	7.5
Horse chestnut	34	3.04	15.6
Oak	34	3.04	24.0
Pear	34	3.04	8.4
Pine	29	2.59	9.2
Apple	28	2.50	16.9
Locust	27	2.42	10.0
Ash	21	1.88	11.8
American beech	16	1.43	10.7
Basswood	11	0.98	15.5
Poplar	10	0.89	10.7
Tulip	8	0.72	10.0
Birch	7	0.63	12.0
Hemlock	5	0.45	7.4
Tamarck	3	0.27	9.3
Hawthorne	2	0.18	9.5
Total	1118	100.00	13.7



1922 Species
Composition

THORNDEN PARK

Syracuse, New York

APPENDIX C

VEGETATION METHODOLOGY

Methodology used to conduct the spatial-temporal analysis of cover types within the park and used to inventory the structure and composition of forest, parkland, and, linear cover types. This part of the project was done by Wayne and Connie Zipperer in the autumn of 1989.

Analysis of Vegetation Cover Types

Cover types within the park were classified as forest, shrub-forest, parkland, mass plantings, linear, pinetum, garden, lawn, and paved. To document changes in the cover types within the park, cover maps were delineated from aerial photographs for seven time periods- - 1926, 1938, 1948, 1955, 1964, 1978, and 1981 - -using a zoom transfer scope. Maps were scaled to 1:2400. For a cover map, the total area of each cover type was electronically digitized. Temporal and spatial changes of cover types were identified and evaluated by over laying cover maps.

Analysis of Current Vegetation

A vegetation analysis was conducted to provide data on the structure and composition of trees in the forest, the parkland, and linear cover types. For the parkland and forest cover types, the analysis was not a complete species inventory, but rather a sub-sample of those areas. A species inventory was conducted in 1989 (Appendix D).

Because of the variety of ages and historical development of the forest and parkland cover types within the park, these cover were stratified into smaller homogenous units to minimize variances in sampling. The 1981 cover map was subdivided and the location of the randomly selected sample plots, (26 for forests and 28 for parkland). For each 1/20th acre sample plot, the species and dbh (diameter at breast height) of all trees greater than 1 inch dbh were recorded. To obtain historical information on sequence of development of the different patches of forest cover type in the park, increment cores were taken at each sample plot from three to four selected trees. Trees were the largest on the plot, and samples were taken 18 inches above the ground. Annual rings of cores were counted with the aid of a stereo scope.

To inventory the linear cover type, all trees classified as linear for the vegetation cover analysis were measured. For each tree, the species and dbh were recorded.

Table 2. Measured area (acres) of each cover type by sample year.

Cover type	Area (acres)				
	1926	1938	1948	1955	1964
Paved surfaces	4.5	8.9	8.9	8.9	8.9
Lawn	49.7	42.2	43.4	36.5	39.1
Mass plantings	0.0	4.5	2.3	2.1	0.2
Formal gardens	0.8	1.8	1.9	1.9	1.9
Pinetum	0.0	1.0	1.0	1.1	1.1
Linear	2.5	3.5	3.8	5.2	3.9
Parkland	17.3	14.0	13.9	17.1	14.7
Shrub-forest	1.2	0.0	0.6	1.3	0.0
Forest	0.0	0.0.	0.0	1.6	6.0

Table 3. Estimated mean density (stems/acre), percent of total, and mean diameter (dbh) of sampled species within the forest cover type.

Species	Density		Diameter (dbh inches)
	Stems/acre	Percent	
Norway maple	195.7	54.91	7.2
Black cherry	45.0	3.41	8.0
Norway spruce	29.3	8.22	8.0
Hemlock	19.3	5.41	5.9
Pin cherry	17.1	4.81	6.1
Box elder	13.6	3.81	9.8
Thuja spp.	13.6	3.81	6.1
White spruce	7.9	2.20	10.0
Black walnut	6.4	1.80	8.1
Hawthorne	6.4	1.80	5.2
White Ash	5.0	1.40	9.4
White pine	5.0	1.40	9.5
Elm	4.3	1.20	6.2
Sugar Maple	4.3	1.20	7.8
Green ash	3.6	1.00	5.2
Horse chestnut	3.6	1.00	9.1
White fir	2.9	0.80	10.3
Basswood	0.7	0.20	12.4
Blue spruce	0.7	0.20	16.9
Butternut	0.7	0.20	8.0
Hophornbeam	0.7	0.20	9.0
Locust	0.7	0.20	5.4
Mountain ash.	0.7	0.20	15.9
Pin Oak	0.7	0.20	20.5
Red pine	0.7	0.20	12.2
Scotch pine	0.7	0.20	10.5
Total	389.3	100.00	7.5

Table 4. Estimated mean density (stems/acre), percent of total, and mean diameter (dbh) of sampled species within the parkland cover type.

Species	Density		Diameter (dbh inches)
	Stems/acre	Percent	
Sugar maple	23.8	21.99	20.1
Norway spruce	16.9	15.60	9.8
Norway maple	13.1	12.06	10.5
Carolina poplar	9.2	8.51	22.5
White ash	8.5	7.80	15.1
Linden	4.6	4.28	14.8
American beech	3.8	3.55	27.1
Red maple	3.8	3.55	22.4
Thuja spp.	3.8	3.55	8.9
Douglas fir	3.1	2.84	7.9
Locust	3.1	2.84	8.2
Tulip	3.1	2.84	21.6
Black cherry	2.3	2.13	17.5
Pin oak	2.3	2.13	19.5
Hemlock	1.5	1.42	4.2
Ginko	0.8	0.71	22.0
Hophornbeam	0.8	0.71	18.0
Horse chestnut	0.8	0.71	19.5
Larch	0.8	0.71	17.0
Silver maple	0.8	0.71	9.8
White oak	0.8	0.71	31.6
White pine	0.8	0.71	16.3
Total	108.5	100.00	16.0

Table 5. Total density and mean diameter (dbh) of sampled species within the linear cover type.

Species	Total	Density		Diameter (dbh inches)
			Percent	
Norway maple	71		52.59	14.6
Silver maple	43		31.85	18.7
Norway spruce	10		7.41	13.6
Pin Oak	5		3.70	24.9
Austrian Pine	3		2.22	14.7
Ulmus spp.	2		1.48	25.7
White spruce	1		0.74	11.9
Total	135		100.00	16.4

APPENDIX D (1)

THORNDEN SPECIES LIST

America basswood
 American beech
 American elm
 American holly
 Atlantic white cedar
 Austrian pine
 Balsam fir
 Basswood
 Black cherry
 Black locust
 Black oak
 Black walnut
 Blue spruce
 Boxelder
 Butternut
 Carolina poplar
 Crab tree
 Douglas fir
 Eastern cottonwood
 Eastern hemlock
 Eastern hophornbeam
 Eastern red cedar
 Eastern white pine
 Elm
 Engelmann spruce
 European larch
 European weeping beech
 Ginkgo
 Hawthorne
 Honey locust
 Horse chestnut
 Jack pine
 Japanese larch
 Kentucky coffeete tree
 Lodgepole pine
 Northern white cedar
 Norway maple
 Norway spruce
 Oriental arborvitae
 Pin oak

Tilia americana
Fagus grandifolia
Ulmus americana
Ilex opaca
Chamaecyparis thyoides
Pinus nigra
Abies balsamea
Tilia spp.
Prunus serotina
Robinia psuedoacacia
Quercus velutina
Juglans nigra
Picea pungens
Acer negundo
Juglans cinerea
Populus nigra var canadensis
Malus spp.
Pseudotsuga menziesii
Populus deltoides
Tsuga canadensis
Ostrya virginiana
Juniperus virginiana
Pinus strobus
Ulmus spp.
Picea engelmannii
Larix decidua
Fagus sylvatica
Ginkgo biloba
Crataegus spp.
Gleditsia triacanthos
Aesculus hippocastanum
Pinus bantisia
Larix kaempferi
Gymnocladus dioicus
Pinus contorta
Thuja occidentalis
Acer platanoides
Picea abies
Thuja orientalis
Quercus palustris

Pitch pine	<u>Pinus rigida</u>
Ponderosa pine	<u>Pinus ponderosa</u>
Red maple	<u>Acer rubrum</u>
Red oak	<u>Quercus rubra</u>
Red pine	<u>Pinus resinosa</u>
Red spruce	<u>Picea rubens</u>
Scotch pine	<u>Pinus sylvertris</u>
Silver maple	<u>Acer saccharinum</u>
Sugar maple	<u>Acer saccharum</u>
Sweet birch	<u>Betula lenta</u>
Sweet cherry	<u>Prunus avium</u>
Tulip tree	<u>Liriodendron tulipifera</u>
White ash	<u>Fraxinus americana</u>
White fir	<u>Abies concolor</u>
White mulberry	<u>Morus alba</u>
White oak	<u>Quercus alba</u>
White spruce	<u>Picea glauca</u>
Yellowwood	<u>Cladrastris kentukea</u>

Footnotes

1. Department of Community Development, City of Syracuse, New York.
1989. "The Syracuse Historic Landscape Survey". 24p.

APPENDIX E

THORNDEN PARK USER ANALYSIS

PART 1

Please check () one group in which you are affiliated:

.....Thornden Park Association	The Rose Society
.....SU/ESF Student/Faculty	Syracuse area resident
.....Thornden neighborhood resident	Other

How often do you/family visit the park? (circle one)

weekly monthly seasonally yearly

Please check () which photos are/are not Thornden Park features and locate on the map those In the park using the photo identification letter.

<u>Photo ID</u>	<u>In the park</u>	<u>Not in the park</u>
A		
B		
C		
D		
E		
F		
G		
H		
I		
J		

How would you describe: (mark an X)

Your recreational interest 1 2 3 4 5

in the park Active.....Passive

Park security Safe.....Dangerous

Physical appearance
of park facilities Clean.....Dirty
(pool, benches, etc.)

Availability of parking Convenient.....Inconvenient

Landscape improvement Necessary.....Unnecessary
(trees, shrubs, lawn etc.)

Thornden Park as a
historic landmark Important.....Unimportant

Please describe your image of Thornden Park?

What improvements would you like to see take place in the park?

Why do you use/not use the park?

PART 2 TRADE-OFF GAME

- 1) Examine the six park issue cards and write down one standard (a,b,c) from each card that most accurately represents the existing condition in Thornden Park.
- 2) Then, circle a rating (1-5) for each standard you choose.

<u>Park issue card</u>	<u>Standard</u>	<u>Poor</u>	<u>Fair</u>	<u>Average</u>	<u>Good</u>	<u>Excellent</u>
Landscape Modification		1	2	3	4	5
Recreation Type		1	2	3	4	5
Security		1	2	3	4	5
Maintenance		1	2	3	4	5
Historic Quality		1	2	3	4	5
Parking		1	2	3	4	5

Consider yourself a park planner for the Department of Parks in the City of Syracuse, New York. Your job is to coordinate the physical and visual environment of Thornden Park for the future. You must allocate a fixed budget (\$100.00) among all the standards such that your final choices will provide the community with the best possible park conditions.

Guidelines:

Allocate the total \$100.00 budget among the six park issue cards.

Within each park issue card distribute the allocated amount among the specific standards as you see fit.

You must spend the entire fixed budget (\$100.00).

You may not over spend.

Please fill in your allocated amounts:

Recreational Type

Total \$..... Standard a \$..... b \$..... c \$.....

Landscape Modification

Total \$..... Standard a \$..... b \$..... c \$.....

Security

Total \$..... Standard a \$..... b \$..... c \$.....

Maintenance

Total \$..... Standard a \$..... b \$..... c \$.....

Historic Quality

Total \$..... Standard a \$..... b \$..... c \$.....

Parking

Total \$..... Standard a \$..... b \$..... c \$.....

What specific criteria did you use in allocating the money?

Thank-you for your help.

PARK ISSUE.. LANDSCAPE MODIFICATION



•NONE



•SOME



•EXTENSIVE

PARK ISSUE.. RECREATION TYPE



•MOSTLY ACTIVE



•ACTIVE / PASSIVE



•MOSTLY PASSIVE

PARK ISSUE.. SECURITY



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•LOW



•MEDIUM

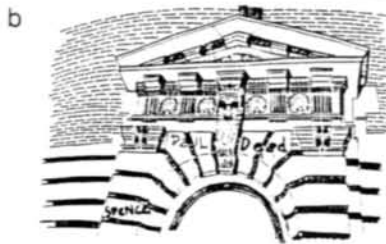


•HIGH

PARK ISSUE.. MAINTAIN FACILITIES



•LOW



•PERIODIC



•HIGH

PARK ISSUE.. HISTORIC QUALITY



•REDEVELOPMENT



•CONSERVATION



•PRESERVATION

PARK ISSUE.. PARKING



•READILY AVAILABLE



•DESIGNATED LOT



•NO PARKING IN PARK INTERIOR

APPENDIX F

Part 2 - Trade-Off Game Budget Data

Landscape Modification-----

Existing Conditions:

	<u>a rating</u>	<u>b rating</u>	<u>c rating</u>
TNR	0	9 average	1 good
TPA	5 poor/fair	5 fair	0
RS	0	7 aver/good	3 fair
OTHER	3 fair	5 fair/aver	2 average
SU/ESF	2 fair	3 aver/good	0
SAR	0	5 aver/good	0

Budget Allocation:

	total mean (\$)	<u>a</u>		<u>b</u>		<u>c</u>	
		\$	%	\$	%	\$	%
TNR	18.00	2.45	13.6	10.00	55.6	5.55	30.8
TPA	19.70	2.80	14.2	6.80	34.5	10.10	51.3
RS	29.40	2.10	7.0	13.20	45.0	14.10	48.0
OTHER	13.80	3.70	26.8	7.40	53.6	2.70	19.6
SU/ESF	19.00	3.60	19.0	12.20	64.2	3.20	16.8
SAR	13.00	3.80	29.2	7.80	60.0	1.40	10.8

In general, standard b, displaying natural and horticultural features, was chosen as the existing condition in the park. The allocated money by each group indicates a satisfaction with this condition and a desire for this type of park landscape.

Recreation Type-----

Existing Conditions:

	<u>a</u>	<u>rating</u>	<u>b</u>	<u>rating</u>	<u>c</u>	<u>rating</u>
TNR	2	average	8	aver/good	0	
TPA	1	average	9	aver/good	0	
RS	1	excellent	8	excellent	1	fair
OTHER	0		9	aver/good	1	average
SU/ESF	0		4	aver/good	1	good
SAR	0		4	aver/good	1	average

Budget Allocation:

	total mean		<u>a</u>	<u>b</u>	<u>c</u>		
	(\$)	\$	%	\$	%	\$	%
TNR	15.50	3.80	24.5	8.40	54.2	3.30	21.3
TPA	12.40	4.10	33.0	5.50	44.4	2.80	22.6
RS	11.80	2.30	19.5	7.60	64.4	1.90	16.1
OTHER	27.50	13.10	47.6	11.50	41.8	2.90	10.6
SU/ESF	16.00	3.80	23.7	6.60	41.3	5.60	35.0
SAR	21.00	6.60	31.4	8.80	42.0	5.60	26.6

Participants identified the park as used for active/passive activities. The budget allocation displayed a need for the park to possess areas for both active and passive users.

Historic Quality-----

Existing Conditions:

	<u>a rating</u>	<u>b rating</u>	<u>c rating</u>
TNR	1 fair	8 fair/aver	1 excellent
TPA	0	7 poor/fair	3 average
RS	0	5 fair/aver	5 good
OTHER	0	7 fair/aver	3 poor/fair
SU/ESF	0	4 average	1 average
SAR	0	5 fair/aver	0

Budget Allocation:

	total mean	<u>a</u>		<u>b</u>		<u>c</u>	
	(\$)	\$	%	\$	%	\$	%
TNR	21.00	2.15	10.0	8.55	41.0	10.30	49.0
TPA	22.90	4.10	18.0	2.80	12.0	16.00	70.0
RS	11.30	2.40	21.0	3.40	30.1	5.50	48.7
OTHER	12.80	2.70	21.1	4.50	35.1	5.60	43.8
SU/ESF	18.60	4.40	23.6	4.40	23.7	9.80	52.7
SAR	15.40	1.40	9.1	6.20	40.3	7.80	50.6

Conservation (standard b) was chosen as the existing condition in the park. Participants are very much in favor of preserving the historic quality of the park.

Parking-----

Existing Conditions:

	<u>a</u>	<u>rating</u>	<u>b</u>	<u>rating</u>	<u>c</u>	<u>rating</u>
TNR	6	poor/fair	4	aver/good	0	
TPA	7	aver/good	2	fair/aver	1	poor
RS	5	fair	1	fair	4	poor/fair
OTHER	5	poor/fair	3	poor/fair	2	poor
SU/ESF	3	poor/fair	1	poor	1	good
SAR	3	fair/aver	2	good	0	

Budget Allocation:

	<u>total mean</u>	<u>a</u>		<u>b</u>		<u>c</u>	
	<u>(\$)</u>	<u>\$</u>	<u>%</u>	<u>\$</u>	<u>%</u>	<u>\$</u>	<u>%</u>
TNR	6.40	1.50	23.4	2.65	41.4	2.25	35.2
TPA	5.80	1.40	24.1	3.10	53.5	1.30	22.4
RS	11.40	3.00	26.3	7.00	61.4	1.40	12.3
OTHER	10.80	2.90	26.8	5.70	52.8	2.20	20.4
SU/ESF	6.20	1.00	16.3	3.20	51.6	2.00	32.3
SAR	6.20	1.40	22.6	3.00	48.4	1.80	29.0

Parking was viewed as readily available throughout the park regardless of the no parking signs alongside the roads. The current policy designates the lot by the bath house for parking. This policy needs to be reinforced and the allocated money for this issue indicates a preference for the designated lot

Security-----

Existing Conditions:

	<u>a</u>	<u>rating</u>	<u>b</u>	<u>rating</u>	<u>c</u>	<u>rating</u>
TNR	1	fair	9	fair/aver	0	
TPA	2	poor/fair	7	fair/aver	1	fair
RS	6	poor/fair	4	average	0	
OTHER	4	fair	4	fair/aver	2	aver/good
SU/ESF	5	poor/fair	0		0	
SAR	0		5	fair/aver	0	

Budget Allocation:

	total mean	<u>a</u>		<u>b</u>		<u>c</u>	
	(\$)	\$	%	\$	%	\$	%
TNR	15.00	2.55	17.0	7.65	51.0	4.80	32.0
TPA	15.60	3.70	23.7	3.10	19.9	8.80	56.4
RS	15.00	2.80	19.0	4.80	32.0	7.40	49.0
OTHER	16.30	3.00	18.4	3.70	22.7	9.60	58.9
SU/ESF	22.40	1.20	5.4	4.20	18.7	17.00	75.9
SAR	27.40	4.80	17.4	6.00	22.0	16.60	60.6

Security was identified as low or medium standards (a/b). The allocated amounts represented a desire for high security with more open views, lighting and visible signs of authority.

Maintenance-----

Existing Conditions:

	<u>a</u>	<u>rating</u>	<u>b</u>	<u>rating</u>	<u>c</u>	<u>rating</u>
TNR	3	poor	6	fair	1	average
TPA	3	poor	7	poor/fair	0	
RS	3	poor/fair	5	fair/average	1	good
OTHER	3	poor/fair	6	fair/aver	1	good
SU/ESF	0		5	fair/aver	0	
SAR	2	fair/aver	3	average	0	

Budget Allocation:

	total mean	<u>a</u>		<u>b</u>		<u>c</u>	
	(\$)	\$	%	\$	%	\$	%
TNR	24.10	2.40	10.0	2.00	8.3	19.70	81.7
TPA	23.60	1.20	5.1	2.30	9.7	20.1	85.2
RS	21.10	1.50	7.1	4.70	22.3	14.9	70.6
OTHER	20.80	1.30	6.2	4.20	20.2	15.30	73.6
SU/ESF	17.80	1.00	5.6	1.40	7.9	15.40	86.5
SAR	17.00	4.60	27.0	3.00	17.7	9.40	55.3

Maintenance standard b was chosen as the existing condition and the allocated amounts indicate an overwhelming desire for the best possible maintenance conditions.

	TNR	TPA	RS	OTHER	SU/ESF	SAR
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Maintenance	24.10	23.60	21.10	20.80	17.80	17.00
Landscape Modification	18.00	19.70	29.40	13.80	19.00	13.00
Historic Quality	21.00	22.90	11.30	12.80	18.60	15.40
Security	15.00	15.60	15.00	16.30	22.40	27.40
Recreation	15.50	12.40	11.80	27.50	16.00	21.00
Parking	6.40	5.80	11.40	10.80	6.20	6.20

Visual appearance of the park was the major preference for allocating the \$100.00 budget and related to the image described in Part 1 of the user analysis. Parking received the least amount of money indicating a low public preference.

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