LYNDHURST HISTORIC LANDSCAPE REPORT:
SIGNIFICANCE, ANALYSIS & TREATMENT

prepared for
Lyndhurst, Tarrytown, New York
a property of the
National Trust for Historic Preservation

prepared by
LANDSCAPES
Landscape Architecture•Planning•Historic Preservation
Westport, Connecticut & Charlotte, Vermont
LYNDHURST HISTORIC LANDSCAPE REPORT:
SIGNIFICANCE, ANALYSIS & TREATMENT

prepared for
Lyndhurst, Tarrytown, New York
a property of the
National Trust for Historic Preservation

Susanne Brendel Pandich, Director
Robert M. Toole, Landscape Architect & Professional Advisor

prepared by
LANDSCAPES
Landscape Architecture•Planning•Historic Preservation
Westport, Connecticut & Charlotte, Vermont
Patricia M. O’Donnell, FASLA, AICP, Principal
Heidi Hohmann, Technical Staff
and
David Schuyler, PhD, Historian
Lancaster, Pennsylvania
Acknowledgements: Funding for this project was provided through the generous assistance of the Preservation League of New York, the New York Council on the Arts and the Henry Luce Foundation. We are grateful for their help, which has allowed us to continue the process of protecting and preserving the Lyndhurst landscape.

©Copyright, November 1996 by the National Trust for Historic Preservation and LANDSCAPES Landscape Architecture•Planning•Historic Preservation. All rights reserved. Information in this publication may be copied and used, with the conditions that full credit is given to the National Trust and to LANDSCAPES Landscape Architecture•Planning•Historic Preservation and that appropriate citations and bibliographic credits are made.
EXECUTIVE SUMMARY

This Lyndhurst Historic Landscape Report: Significance, Analysis, and Treatment is Phase II of a project which produced the Lyndhurst Historic Landscape Report: Site History, Existing Conditions and Interpretive Brochure in 1993. The goal of this phase of the project has been, based on the research in phase I, to analyze the Lyndhurst landscape and make recommendations for its future preservation and management. This has been accomplished according to accepted landscape preservation procedures laid out by the Secretary of the Interior’s Standards for the Treatment of Historic Properties and Guidelines for the Treatment of Cultural Landscapes. As a first step, some additional research was undertaken ans is summarized in Appendix A: Additional Research in Historic Context. Based on this work, and on the research of Phase I, a Statement of Significance for the Lyndhurst landscape was determined, as follows: The Lyndhurst landscape is significant as a rare surviving example of an early type of American estate landscape whose design was based on English landscape gardening styles. The landscape also contains significant contributions from its varied owners, who implemented design styles peculiar to their eras and personal tastes, which together combine to form the unique landscape seen today. Additional significance of the estate accrues from its associations with Alexander Jackson Davis, the architect who designed the Mansion and gave advice to owners Paulding and Merritt on the design of the property. The work of Ferdinand Mangold, a gardener who implemented the landscape design for 40 years, is also significant, as work representative of German and other immigrant gardeners who greatly influenced American park and estate design.

The period of significance of the landscape was determined to be 1836 to circa 1920, dates which encompass significant developments on the property during the four historic owner periods. The character-defining features of the landscape were then analyzed and the integrity of the Lyndhurst landscape assessed. This was accomplished by comparing the condition and status of the landscape and its features at the end of the period of significance with their status and condition today. A series of analysis drawings, documenting extant, partially remaining, lost, and new features were produced as part of this process. The analysis revealed that although many features remain extant in the landscape today, significant changes and loss, particularly in overall landscape spatial organization and character have occurred, and combine to lower the overall integrity of the property. However, the analysis also shows that many of these changes, occurring to vegetative and built features, are due to decreased maintenance, maturation, and natural decline, and may, over time, be reversed via an appropriate landscape treatment.

The final portions of this report focus on the future treatment of the Lyndhurst landscape. To these ends, the treatment of the Lyndhurst landscape was fully explored under the concepts laid out in the Secretary of the Interior's Standards for Treatment of Historic Properties. The potential ramifications of all four possible preservation treatments were considered, and the one most appropriate treatment was selected. Based on the research and analysis contained within the Historic Landscape Report, as well as on discussions with site staff and board members which considered budget, staffing, and Lyndhurst's overall mission, the selected treatment for the Lyndhurst landscape was determined to be Restoration, focusing on the West Lawn, the Main Drive, and the Greenhouse Environs, with a Preservation treatment of all other areas.

Specific recommendations on the long term implementation of this treatment are considered in greater detail in the final chapter of this document, and are illustrated in Exhibit 24: Landscape Restoration Treatment. A reduced version of this drawing is included as part of this Executive Summary. Although these treatment recommendations are the end of the multi-year effort to document and analyze the historic landscape, they are also the beginning of a new era of comprehensive landscape preservation and stewardship. It is hoped they will serve to renew and sustain the Lyndhurst landscape well into the coming twenty-first century.
# TABLE OF CONTENTS

EXECUTIVE SUMMARY ........................................ iii

ILLUSTRATION LIST ........................................ iv

INTRODUCTION ............................................... 1

I. Phase I .................................................. 1
II. Phase II .................................................. 2

CHAPTER I. LYNDHURST LANDSCAPE SIGNIFICANCE .......... 5

I. Statement of Significance ................................... 5
II. Period of Significance ....................................... 6

CHAPTER II. LYNDHURST LANDSCAPE ANALYSIS ............ 11

I. Introduction ............................................... 11
II. Analysis Units ............................................ 11
III. Analysis of Units ......................................... 24
IV. Analysis Summary: Integrity ............................... 46

CHAPTER III. EXPLORING LYNDHURST LANDSCAPE TREATMENT ... 47

I. Introduction ............................................... 47
II. Treatment Options for the Lyndhurst Landscape ........... 47
III. Summary .................................................. 50

CHAPTER IV. RESTORATION TREATMENT FOR THE LYNDHURST LANDSCAPE ... 51

I. Introduction ............................................... 51
II. Priority Landscape Restoration Units ....................... 51
III. Secondary Landscape Restoration Units .................... 62
IV. Other Issues .............................................. 66
V. Conclusion .................................................. 66

APPENDIX A: ADDITIONAL RESEARCH IN HISTORIC CONTEXT .... App-1
ILLUSTRATION LIST

FIGURES

Figure 1. View of the West Lawn and the Mansion from the Apple Orchard. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3409, New York State Historical Association, Cooperstown.

Figure 2. The Tree House, viewed from the south. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3414, New York State Historical Association, Cooperstown.

Figure 3. Path and seat in the Rockery. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3417, New York State Historical Association, Cooperstown.

Figure 4. Seat around weeping tree. Note concrete path in foreground and view of nursery area, lower drive and Hudson River in distance. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3413, New York State Historical Association, Cooperstown.

Figure 5. View of the Fern Garden along the Main Entry Drive, showing palisade beds and hemlock canopy. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3418, New York State Historical Association, Cooperstown.

Figure 6. Massed ferns under hemlocks in the Fern Garden. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3419, New York State Historical Association, Cooperstown.

Figure 7. Portion of garden between the Mansion and the Coach House, on the west side of the Main Drive, showing a composition of groundcover and spring bulbs. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3412, New York State Historical Association, Cooperstown.

Figure 8. Perennial borders with grass paths between them, constructed during the Helen Gould Shepard ownership. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3428, New York State Historical Association, Cooperstown.

Figure 9. Rose Garden with grass paths, concentric circular beds, and arbors, all constructed during the Helen Gould Shepard ownership. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3433, New York State Historical Association, Cooperstown.

Figure 10. The central feature of the Rose Garden: a wood rose pergola with built-in benches and covered with climbing roses. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3426, New York State Historical Association, Cooperstown.

Figure 11. The diminutive Rose Cottage located in a grove of lindens on the East Lawn. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3415, New York State Historical Association, Cooperstown.

Figure 12. West Lawn and Mansion, with concrete path and flowering trees in view. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3410, New York State Historical Association, Cooperstown.

Figure 13. Boy with sandbox on East Lawn. Note shrub mass and tree clumps along drive in the distance. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3405, New York State Historical Association, Cooperstown.
Figure 14. Rhododendron masses with deciduous trees behind. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3439, New York State Historical Association, Cooperstown.

Figure 15. Rose Garden, showing beds and arches over paths. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3434, New York State Historical Association, Cooperstown.

**EXHIBITS**

Exhibit 12: Period of Significance: 1836-circa 1920. LANDSCAPES LA•Planning•HP.

Exhibit 13: Existing Conditions: Lyndhurst, 1996. LANDSCAPES LA•Planning•HP.

Exhibit 14: Analysis Zones. LANDSCAPES LA•Planning•HP.

Exhibit 15: Built Elements: Extant LANDSCAPES LA•Planning•HP.

Exhibit 16: Vegetation: Extant. LANDSCAPES LA•Planning•HP.

Exhibit 17: Built Elements: Partially Extant. LANDSCAPES LA•Planning•HP.

Exhibit 18: Vegetation: Remnant Shrubs. LANDSCAPES LA•Planning•HP.

Exhibit 19: Built Elements: Lost. LANDSCAPES LA•Planning•HP.

Exhibit 20: Vegetation: Lost. LANDSCAPES LA•Planning•HP.

Exhibit 21: Built Elements: New. LANDSCAPES LA•Planning•HP.

Exhibit 22: Vegetation: Added Since 1970s. LANDSCAPES LA•Planning•HP.

Exhibit 23: Main Drive: Analysis. LANDSCAPES LA•Planning•HP.

Exhibit 24: Landscape Restoration Treatment Plan. LANDSCAPES LA•Planning•HP.
INTRODUCTION

This report, Lyndhurst Historic Landscape Report: Significance, Analysis and Treatment, is phase II of the Lyndhurst Historic Landscape Report. The first phase of this project resulted in a previous document, completed in 1994, entitled Lyndhurst Historic Landscape Report: History, Existing Conditions, and Interpretive Brochure. Together, these two phases comprise a project whose broad goals are to aid the National Trust in its effort to preserve and interpret the Lyndhurst landscape.

I. PHASE I: HISTORY, EXISTING CONDITIONS, AND INTERPRETIVE BROCHURE

A primary objective of phase one of the Historic Landscape Report was to document the landscape history of Lyndhurst from 1836, through its several owner periods, to the present. To effectively meet this objective, the scope of phase I included historic research and the development of a narrative describing the Lyndhurst landscape's history, accompanied by a set of period plans documenting each period of ownership of the site. This research component included the examination of historic photographs and extant historic plans of the property. Then, the existing conditions of the site were documented, work which included a detailed field survey of the 67-acre property to record its features and vegetation. Particular care was taken to document over 500 trees in Lyndhurst's important tree collection. The result of this work was an existing conditions narrative, an existing conditions plan, and a tree accessioning plan which locates and assigns a number and species code to many of the significant trees on the site. All of this research was assembled into a comprehensive report, illustrated with plans and photographs. In addition to a site history and existing conditions narrative, the report also contained contextual information on other estates to aid in placing the Lyndhurst landscape into its proper social and historical milieu. And the final part of phase I included the development of a landscape interpretive brochure, to ensure that information discovered about the landscape history would be conveyed to Lyndhurst's visitors.

The research revealed that the history of the landscape may be broken down into five ownership periods. During each of these ownership periods, important changes were made to the estate, the sum of which have created the Lyndhurst landscape seen today. These owner periods are summarized below as background information for this phase II report:

**Paulding Period.** William Paulding and his son Philip owned "Knoll," as the property was then called, from 1836-1863. They commissioned Alexander Jackson Davis, a well known architect, to design a Picturesque Gothic Mansion on the site. Davis sited the house on a knoll with broad views of the Hudson River and Valley. The Pauldings added a stable and planted trees, but the land, former pasture and crop fields, remained relatively open during this period. Assembled sources from maps and written descriptions appear to indicate open spaces punctuated with important individual trees or tree clusters, and a forested river frontage and trees along the property edges remained from the former use of the land as a farm. Although documentation from this period is limited, the design of the landscape appears to adhere to Picturesque principles of English-style landscape design, as shown by the siting of the Mansion, the treatment of the riverfront landscape, and plantings around the house. Lindens on the property, west and east of the Mansion became a signature of the estate during this time.

**Merritt/Mangold Period.** Between 1864 and 1879, George Merritt owned "Lyndenhurst," as he renamed the property. Merritt's ownership saw a great deal of development in the landscape, including an addition, again designed by Davis, to the Mansion. Merritt went forward with a great
deal of work in the landscape, which was implemented by Ferdinand Mangold, a master gardener and immigrant trained in the royal horticultural spheres in Germany. Together, Merritt and Mangold developed a landscape which incorporated new Gardenesque-style elements while retaining the Picturesque qualities of the Hudson River frontage and the Beautiful qualities found in the open lawns. Based on information gleaned from historic photos and the 1875 plan of the property, elements that were added to the landscape during this period included the entry drive with shrub and tree clusters along it, new clumps of rarer trees and shrubs in many locations across the grounds, and an enormous Greenhouse surrounded by elaborate flower beds. Also prominent in the landscape during this period were orchards, vegetable gardens, and vineyards.

- **Gould/Mangold Period.** Between 1880 and 1905 the property, now known as "Lyndhurst," was owned by Jay Gould and his daughter Helen Gould. These two owners, again aided by Ferdinand Mangold, continued to embellish the landscape. Jay Gould, an avid hobby horticulturalist, planted new trees and shrubs. Gould also rebuilt and restocked the Greenhouse after it was consumed by fire shortly after he purchased the property. When Gould died in 1891, his daughter Helen Gould continued to manage the property with Mangold's assistance, retaining earlier work while adding new features. In 1905, when Ferdinand Mangold died, a detailed survey of the property was produced and remains a good source of documentation of this period.

- **Gould Period.** Following Mangold's death, Helen Gould Shepard continued to take care of the property. Shepard's additions to the property during this period included the development of the Rose Garden and flower borders and the planting of shrub masses in many areas. She also added a number of new structures to the property, including the Swimming Pool. The full complement of structures and gardens were present by 1920. Up until her death in 1938, the Lyndhurst grounds were maintained with a high level of care. In the following years, her sister Anna Gould, the Duchess of Talleyrand Perigord was infrequently in residence at Lyndhurst, and made only minor changes to the property, such as the additions of sculptures and site furniture. When she died in 1961, ending this period of ownership, her will bequeathed Lyndhurst to the National Trust.

- **National Trust Period.** Since 1964, the National Trust has acted as stewards for Lyndhurst. During the early years of stewardship, additional farm lands surrounding the estate landscape were sold, and management efforts were primarily directed towards preserving the historic structures. The landscape received a lower level of maintenance than in previous periods, and maturation, disease, and competition with volunteer vegetation led to the decline of many plants. The Greenhouse glass was lost during this period, and decorative garden areas were also lost. Although many plantings dating to the Merritt/Mangold and Gould periods clearly remained, substantial losses and subtle changes were revealed through the detailed research and field survey undertaken as part of this project.

II. PHASE II: SIGNIFICANCE, ANALYSIS, AND TREATMENT

The goal of phase II, summarized in this report, has been, based on the research in phase I, to more closely examine the Lyndhurst landscape and make recommendations for its future preservation and management. This has been accomplished according to accepted landscape preservation practice and procedures laid out by the Secretary of the Interior's *Standards for the Treatment of Historic Properties* and *Guidelines for the Treatment of Cultural Landscapes*. As a first step, some additional research was undertaken. Summarized in Appendix A: Additional Research in Historic Context, this research focuses on examining additional
concurrent examples of estate designs to better place the Lyndhurst landscape among other designed landscapes. Based on this work, and on the research of phase I, a Statement of Significance for the Lyndhurst landscape was determined. In short, it was determined that the Lyndhurst landscape is significant as a rare surviving example of an early type of American estate landscape whose design was based on English landscape gardening styles. The landscape also contains significant contributions from its varied owners, who implemented design styles peculiar to their eras and personal tastes, which together combine to form the unique landscape seen today. Additional significance of the estate accrues from its associations with Alexander Jackson Davis, the architect who designed the Mansion and gave advice to Paulding and Merritt on the design of the property. The work of Ferdinand Mangold is also significant, as work representative of German and other immigrant gardeners who greatly influenced American park and estate design.

Next, the period of significance of the landscape was determined to be 1836 to circa 1920, dates which encompass the most significant developments on the property during the four historic owner periods. A drawing illustrating the period of significance was also developed, to aid in the next step of phase II, the analysis. It should be noted that the construction of this drawing, Exhibit 12: Period of Significance, was aided by the recent discovery of a series of photographs of Lyndhurst taken by noted estate photographer Mattie Edwards Hewitt. These photographs, which document the appearance of the landscape circa 1920, the end of the period of significance, are located at the archives of the New York State Historical Society in Cooperstown.

Using Exhibit 12 as a basis, the character-defining features of the landscape were analyzed and the integrity of the Lyndhurst landscape assessed. This was accomplished by comparing the condition and status of the landscape and its features at the end of the period of significance with their status and condition today. A series of analysis drawings, documenting extant, partially remaining, and lost features were produced as part of this process, and are included in the report as Exhibits 14 through 23. These drawings and analysis text reveal that although many features remain extant in the landscape today, significant changes and loss, particularly in overall landscape spatial organization and character have occurred, and combine to lower the overall integrity of the property. However, the analysis also shows that many of these changes, occurring to vegetative and built features, are due to decreased maintenance, maturation, and natural decline, and may, over time, be reversed via an appropriate landscape treatment.

The final portions of the phase II report focus on the future treatment of the Lyndhurst landscape. To these ends, the treatment of the Lyndhurst landscape was fully explored under the concepts laid out in the Secretary of the Interior’s Standards for Treatment of Historic Properties. The potential ramifications of all four possible preservation treatments were considered, and the one most appropriate treatment was selected. Based on the research and analysis contained within the Historic Landscape Report, as well as on discussions with site staff and board members which considered budget, staffing, and Lyndhurst’s overall mission, the selected treatment for the Lyndhurst landscape was determined to be Restoration.

Specific recommendations on the long term implementation of this treatment are considered in greater detail in the final chapter of this document, and are illustrated in Exhibit 24: Landscape Restoration Treatment. From one perspective, these treatment recommendations may be considered the end of the multi-year effort to painstakingly document and analyze the historic landscape. From another viewpoint, they are the beginning of a new era of comprehensive landscape preservation and stewardship which will serve to renew and sustain the Lyndhurst landscape well into the coming twenty-first century.
CHAPTER I: LYNDHURST LANDSCAPE SIGNIFICANCE

I. STATEMENT OF SIGNIFICANCE

Based on the historical research summarized in the *Lyndhurst Landscape History, Existing Conditions, and Interpretive Brochure* (phase I of this project) and the further assessment and context research presented in this phase II report, the Lyndhurst landscape has been shown to be a significant work of American landscape design, for a number of reasons. First, it is an outstanding example of an estate landscape developed in the English landscape gardening tradition, as espoused in the writings of Alexander Jackson Downing. The tenets of this school of design influenced the development of many estates comparable to Lyndhurst, the design of such public spaces as Central Park and Prospect Parks, and the development of the profession of landscape architecture. The Lyndhurst landscape is significant as an early example of Picturesque design. The fact that this estate still survives today with many of its structures and landscape features intact, also adds to its significance. Of the thirty-nine examples of nineteenth estates cited in Downing's 1859 *Treatise*, only eight are known to survive with both structures and landscape features substantially extant.

Due to the ongoing evolution of the property over the eighty-odd years of its development, the Lyndhurst landscape has further significance as a representative record of historical changes in the style and techniques of country estate design. The Lyndhurst landscape, which contains elements of Picturesque, Beautiful, and Gardenesque variations of the "modern" style, accrued over many decades, clearly shows the changes in style and taste which affected the design of estates both in the Hudson River Valley and in the northeastern United States during the latter half of the nineteenth century. That the Lyndhurst landscape provides a particularly good record of these nineteenth century design trends can be ascribed, in part, to a resistance on the behalf of owner Helen Gould toward redesigning Lyndhurst's landscape according to popular Neoclassical or Italian Garden design ideas during the early twentieth century.

The Lyndhurst landscape also has significance as the work of two master designers, architect A.J. Davis and master gardener Ferdinand Mangold. Although A.J. Davis's design of Lyndhurst's Gothic Revival mansion is significant primarily in the realm of its architecture, Davis's siting of the mansion on a high point, overlooking a broad expanse of landscape and the Hudson River, significantly influenced the estate's development. It can also be surmised that Davis played some role in the development of the landscape, if only in the recommendation of books and discussion of styles with the owners.

On the other hand, the influence of Ferdinand Mangold, a German gardener, on the property is much clearer, and adds additional significance to the site as exemplifying the work of a master gardener, one of a group of individuals who influenced the design of a whole class of country estates. Mangold's contributions to Lyndhurst include the construction of the winding entry drive with its clumps of various tree and shrub species, the development of the greenhouse, and the addition of orchards, gardens, and hundreds of specimen plantings. According to his obituary, Mangold's work expanded the design laid out by Paulding and Davis, incorporating elements of the Beautiful, in the smooth layout of lawns and clumps of trees, and the Gardenesque, in the addition of greenhouses and the display of specimen plants and arabesque beds of annuals. By the end of Mangold's career at Lyndhurst, a unique landscape had been created, one which expressed both principles of "modern" landscape design, the botanical interests and background of the gardener, and the tastes, aspirations, and the social class and aspirations of the owners. Although the significance of Mangold's work in the context of other German landscape gardeners has not been well explicated at this time, it is believed that future research will reveal his work as being among the important contributions to landscape design in the Hudson Valley.
II. PERIOD OF SIGNIFICANCE

Based on the Statement of Significance, above, the Period of Significance for the Lyndhurst landscape may be considered to be 1836 to circa 1920. This period represents the era of most intensive manipulation of the landscape as directed by the owners and master gardener Ferdinand Mangold. This period is bounded on one side by the beginning date of Paulding’s ownership, which represents the earliest implementation of a design aesthetic on the property. The ending date of circa 1920 was selected because it encompasses the last of Helen Gould’s significant changes to the landscape. These changes include the Rose Garden, Border Garden, and numerous shrub plantings, including many masses of rhododendrons along the drive and around the estate. The date of 1920 was felt to illustrate the most complete expression of the Helen Gould landscape aesthetic, with changes after that date and changes implemented by later owners considered to be less significant. In particular, it was felt that the landscape features—primarily sculpture and furnishings—added by the Duchess of Talleyrand were haphazardly superimposed and not integrated into when considered in the context of the Lyndhurst landscape’s earlier development.

Exhibit 12: Period of Significance, 1836-circa 1920, was developed to illustrate the landscape at the end of this period, and represents the sum total of changes made on the estate during this period. This drawing was constructed using the period plans developed during the previous phase of the project, with revisions based on a re-examination of the Helen Gould Survey of 1905 and new information gleaned from historic photographs. In addition, some information on vegetation extant in 1920 was extrapolated from an in-field survey of existing vegetation and a discussion with Ralph Indivere, a long-time member of the Lyndhurst gardening staff. Features present on this plan represent the result of many accretions and deletions of features which occurred in the landscape over time and express the evolution of the property to 1920. A comparison of Exhibit 12 with Exhibit 13: Existing Conditions, 1996 in the next section will focus on documenting the extent of change that has occurred in the landscape since the end of the period of significance.
ENDNOTES FOR SIGNIFICANCE

1. Information was drawn from an in-field survey of the Lyndhurst grounds by Patricia O'Donnell with Ralph Indivere on December 7, 1995. Mr. Indivere comes from a long line of Italian gardeners. His gardener father was named was Stefano (Vito) and died at the age of 90 about 30 years ago. Ralph Indivere was born March 11, 1916 on the Stirlings' estate. In 1935, at the age of 21, he went to Fasano, Italy, where he trained in gardening "at his grandfather's knee." In 1936 he returned to the United States, and worked on estates in Westchester County and Rye and Harrison in New York, including the Fineberg estate on Westchester Ave. In 1950, he became the "Greenhouse man" for the estate of Dr. Mayer, the property directly north of Lyndhurst, and remained there until 1971. In 1971, he came to work at Lyndhurst. During the field visit Mr. Indivere pointed out locations of plants no longer extant, but which were existing when he came to the estate in 1971. He also indicated where new trees were added to the landscape following the directions of the landscape architect Thomas Kane in 1971-72.
CHAPTER II: LYNDHURST LANDSCAPE ANALYSIS

I. INTRODUCTION

The purpose of this analysis is to assess the level of change which has occurred within the Lyndhurst landscape since the period of significance. The process begins by identifying the character-defining features on the property at the end of the period of significance, based on the historic research findings of the earlier report. The condition and status of these features on the property are then compared to the property's existing conditions today. This assessment allows for a determination of continuity and change. While many features remain, others have been lost or are found in remnant form. The analysis process aids in understanding the overall integrity of the Lyndhurst landscape—the degree to which the historic identity present in the 1920s remains intact today. The analysis findings also provide a basis for developing appropriate preservation treatments for the overall property and its landscape units and individual landscape features.

Two maps aid in this process of comparison. The first of these, Exhibit 12: Period of Significance, 1836-circa 1920, was described previously. The second, Exhibit 13: Existing Conditions, 1996, is an update of the 1992 existing conditions map completed for Phase I of the historic landscape report. Exhibit 13 was developed based on previous mapping, on an in-field vegetation survey conducted during the fall of 1995, and on discussions with Lyndhurst landscape staff. Both recently planted and recently lost vegetation are indicated on Exhibit 13, as are new features built since 1992, such as the parking lot along the east property boundary.

Photographs also aid in the comparison of historic and existing conditions. A set of recently discovered Lyndhurst photographs, which date to the late 1910s and 1920s, have provided new information on the appearance of the landscape at the end of the period of significance. These photographs, taken by noted landscape photographer Mattie Edwards Hewitt, are therefore used to illustrate the historic landscape conditions in the analysis text. Some references are also made to photographs appearing in the Phase I portion of the historic landscape report.

II. ANALYSIS UNITS

Although the historic estate property of Lyndhurst is remarkable for how many of its significant aspects remain intact, understanding change over time in this highly evolved landscape can be difficult. To aid in revealing and understanding landscape change since the period of significance, it is useful to break the Lyndhurst landscape down into a number of landscape units based on function, composition and character at the end of the period of significance, circa 1920. The character-defining features and their interrelationships in each unit may then be identified, and their continuity or change between the 1920s and the present day assessed.

The Lyndhurst landscape can be effectively separated into seven units which are shown as letter codes in Exhibit 14: Analysis Units. They are organized in a general order of importance. These units are:

A. West Lawn & Hudson River Frontage
B. Entry & Main Drive
C. Greenhouse Environ
D. East Lawn
E. Broadway Frontage
F. North Boundary
G. South Boundary
The first of these units is the West Lawn (A). This unit is defined by the Hudson River on the west, the property boundaries on the north and south, and by a line defining the river facing slopes which extends from the drive near the Rose Garden, past the Laundry, along the west facade of the Mansion, and along the plantings near the Main Drive toward the north property boundary. Historically, the West Lawn contained significant structures (Laundry and Bowling Alley) and landscape features (apple orchard, cherry orchard, vegetable gardens, and vineyard), some of which are extant. The sloping topography of the West Lawn further defines the space into four sub-units: a small, high, relatively flat platform on which the Mansion and its surrounding vines, pair of linden trees and beech tree are found; a sloping area composed of open lawn, vegetation along the pedestrian path and two areas of planting paths and seats--the larger Rockery and a smaller area opposite; a more gently sloping area which originally contained the estate agricultural landscape of orchards and vegetable gardens; and, finally, a sloping area with a band of trees and two staff cottages immediately adjacent to the railroad and Hudson River. The lower drive loop encircles the West Lawn.

The next unit of the Lyndhurst landscape is the Greenhouse Environ (C), which is bounded by the property boundary to the north, the path of the Croton Aqueduct to the east and by drives to the west and south. This contained space was the object of constant horticultural activity from the construction of the first Greenhouse in 1863-65 to the development of Helen Gould Shepard's Rose Garden and Border Garden in the 1910s. In addition to the Greenhouse frame and support house, this area now contains the replanted Rose Garden and remnants of flower gardens, vegetable gardens and ornamental tree plantings.

Another unit of the Lyndhurst landscape is the Entry and Main Drive (B). This area begins at the entrance gate and extends along the Main Drive to the Mansion and the Coach House, encompassing the plantings along both sides of the drive. This unit also includes the east side of the Mansion and the Coach House surrounds. The Entry and Main Drive are a composition of built and vegetative features that form a visual and spatial sequence. Bisected by the Entry and Main Drive is another area of the Lyndhurst landscape, the East Lawn (D). Because of the directed views from the Main Drive to the open turf areas on either side of the road, these two spaces were clearly designed as flanking panels of turf and trees and are closely related in character to each other. The area encompassed by the East Lawn is bounded by the drive in front of the Greenhouse on the north, the plantings along the Broadway wall on the east, the buffering wall of vegetation on the south, and the curving edge of the Main Drive on the west. The East Lawn is primarily a space of open turf accented by tree groves and individual specimen trees, though the area contains some other important features, including the diminutive Rose Cottage.

Finally, along the boundaries of the estate are the fifth, sixth, and seventh areas of the Landscape: the Broadway Frontage (E); the North Boundary/Swimming Pool area (F); and the Southern Boundary (G), which contains the Kennel. These three, narrow, perimeter spaces all define the edges of the Lyndhurst landscape.

In the following section, each of these seven units are examined in greater detail. Each unit's current conditions and features are compared with their status at the end of the period of significance, circa 1920. Eight analytical drawings have been constructed to aid in this analysis of change and are included here as Exhibits 15 through 22. Exhibits 15, 17, 19, and 21 respectively show extant, partially extant, lost, and added built elements, while Exhibits 16, 18, 20, and 22 respectively show extant, partially extant, lost, and added vegetation. These analytic drawings use either Exhibit 12: Period of Significance or Exhibit 13: Existing Conditions as a base. It should be noted that there are minor differences in scale, placement, and portrayal of elements on these two plans, because of their differing origins. These Exhibits use a simple technique of darkening and hatching lost, extant, remnant, or new elements to provide an easily apprehended overview of the features and their presence or absence. In some cases, particularly in Exhibit 16: Vegetation: Extant, this simple technique is unable to clarify when extant vegetation is in poor or deteriorating condition. And, because of increased tree canopy sizes of extant trees, the darkened areas may fail to indicate losses of trees
stronger while in some areas views below trees have opened. Similarly, the former cherry orchard, vegetable garden and nursery areas have been completely altered into a dense woodland with a closed canopy, creating a space quite different from the more open nursery and orchard areas. Along the lower drive, extant historic trees are also joined by more recent vegetative growth of species such as Norway maple, devil’s walking stick, and tree-of-heaven. Together, such volunteer growth and mature trees effectively close the views of the river that were once available from the lower drive.

Despite the vegetation and spatial quality changes described above, it should be noted that many other character-defining features of the West Lawn are intact, including built elements, structures and small scale objects. Those remaining or in remnant form are shown in Exhibit 15: Built Elements: Extant and Exhibit 17: Built Elements: Partially Remaining. The Mansion, Laundry, Bowling Alley (currently in the midst of a major renovation), and northern riverfront cottage are all remaining, but the southern riverfront cottage missing. The circulation system is also intact or remnant. The circumferential drive, though suffering from gravel pavement deterioration, missing curbs, and some missing light posts, remains in its original vertical and horizontal alignment. While some light posts remain in a deteriorated state, others have been relocated along the Main Drive between the Entry and the Mansion. The two portions of the drive most deteriorated are the Bowling Alley’s access drive and the "U"-shaped pull-off to the south. The pedestrian paths that connect the Mansion to the Bowling Alley are in remnant form and can be followed with careful inspection. According to a previous consultant, the late Thomas J. Kane, FASLA, portions of the concrete paths were removed in the 1970s and were replaced with gravel or stone dust. Lack of annual maintenance of these less durable path segments has led to their deterioration. Another lost circulation feature on the West Lawn are the circular paths which once surrounded the two riverfront cottages. Although no photographs of these circular paths dating to near the end of the period of significance have been located, these paths appear on the 1905 survey and are assumed to have been present throughout the period of significance.

B. **Entry & Main Drive**

Since its design and construction in the 1860s by George Merritt and Ferdinand Mangold, the entry sequence has been an integral part of the Lyndhurst landscape. As shown in Exhibit 23, Main Drive: Analysis, by the end of the period of significance, the main drive was predominantly characterized by three design aspects:

- the curvilinear alignment of the pavement winding toward the Mansion;
- the space-shaping, carefully paired and alternated groups of plantings located along both sides of the drive;
- the controlled views between shrub and tree plantings over the adjacent lawns and toward the Mansion.

Together these three elements created a unique spatial experience where the drive was a curving volume of space defined by vertical masses of vegetation. These important plant groupings were crescent, half-round and lozenge-shaped groups of trees, shrubs and flowering trees. These single-species or mixed-species plantings were organized in a pattern in which deciduous and evergreen tree species and shrub clusters alternated to provide varying views and differing feelings of mass, light, shadow, enclosure, and openness.

Historically, the drive sequence began at the Entry. Here a pair of small evergreens in the gate planters were matched with two large trees, likely an oak and an elm, located behind the gate wall, as seen in Figure IV.13 in the Phase I report. Directly beyond the gates, on the south side of the drive, was the Gate Lodge, shaded by trees and surrounded by plantings. On the north side were plantings of trees and shrubs. Proceeding along the Main Drive, a linear group of elms lined both sides of the drive. Planted with these elms were an ash and a linden tree, as well as clusters of deciduous and evergreen shrubs. Directly behind these plantings (and behind the Gate Lodge) grew dense spruce clusters of unequal size; these helped to darken and contain the drive at
the Entry. After the linear group of elms, a break in the plantings provided views north to the specimen birch and south to single trees and tree clusters in the lawn.

The next group of plantings were a dense grove of larch with deciduous shrubs on the south side, paired with a mixed deciduous tree group containing dogwood and flowering shrubs in its understory. Another break opened views to the lawn on the south while on the north a band of flowering shrubs provided seasonal interest. Next came groves of evergreen trees, with hemlock on the north and spruce and hemlock over the fern beds on the south. These rock-edged fern beds under spruce and hemlock trees are seen in Figures 5 and 6. Another break, at the access drive to the Kennel, was flanked with large clusters of fuzzy deutzia/Deutzia scabra on opposite sides of the drive. These were followed by unequal deciduous tree groves—copper beech on the south and oak, maple, and tulip tree on the north. A slight break in the groves at the aqueduct signaled a shift in plantings as well, with a specimen copper beech and pines on the north and more copper beech continuing on the south. The copper beech, with its burgundy leaf color and low branching, drew attention to the south, where the first glimpses of the mansion across the lawn could be seen. The pine groves on the north, without understory plantings, acted as a simple foil for the beech, and provided dappled light and slotted views to the lawns beyond.

On the curve leading toward the Mansion, the next plant groupings were paired groves of mixed evergreen trees. The with an evergreen grove to the south had an evergreen shrub understory as well. Together this paired grouping provided a deep, green-toned, tunnel-like experience as one headed toward the Mansion. At the intersection with the loop drive a deciduous tree group, with horse chestnut and linden, crossed the drive. Next came a mixed evergreen cluster on the southeast and a mixed deciduous and evergreen group on the northwest. Directly east of the Mansion, deciduous trees, free of understory plantings, were grouped in an open spacing along the drive. These trees provided summer shade yet permitted views to and from the East Lawn. The small turnaround island in the Main Drive was planted with deciduous trees and at least one large boxwood shrub. A period photograph, seen in Figure 7, shows this area with a dense planting of flowering bulbs, a periwinkle ground cover, and a backdrop of massed rhododendron.

As the Main Drive continued beyond the Mansion to the Carriage House, it was lined on both sides by deciduous tree groves with a dense rhododendron understory. At the Coach House gate, these groves were replaced by masses of evergreen trees with a rhododendron understory. The continuity of rhododendron massing along this stretch of the Main Drive provided a dense, deep green ground plane, unlike other portions. These plantings effectively screened the Coach House—a service area—from the property's main residence. Thus, the entire drive, from Entry to Coach House, was a carefully composed sequence, with plantings providing both botanical interest and a controlled spatial experience.

Today, the structure and basic spatial organization of the original arrival experience remains partially intact with losses and changes in scale. The asphalt drive, formerly gravel, exists on its original alignment. Structures, such as the entrance gate and the Gate Lodge, also remain, though slightly altered. The original Main Drive light fixtures, decorative poles with a globe luminaires, remain today on the main drive. Over the years posts from the lower drive have been removed and used to replace those damaged along the main drive, thereby reducing the number along the lower drive loop.

However, a change in the scale of the plantings on both sides of the road and losses of materials within the vegetation groupings have contributed to a qualitative change in the experience of the drive. These changes are documented in Exhibit 23: Main Drive Analysis, which shows the current orchestration of vegetation groupings along the drive. For example, tree growth has reduced the number of trees in each grouping, since the trees gradually thinned as they matured. The growth of trees and the loss of trees (such as the hemlocks to woolly adelgid) has altered elements of the intended spatial sequence of the drive. The growth of volunteer
Figure 10. The central feature of the Rose Garden: a wood rose pergola with built-in benches and covered with climbing roses. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3426, New York State Historical Association, Cooperstown.
by its open, rolling expanse of turf dotted with specimen trees or clumps of trees. Internal views within the East Lawn were some of the largest within the property. Today, the configuration, topography, and broad views of these areas remain intact, but the two portions of the lawn have, since 1920, suffered some degradation in character, essentially due to the loss of important specimen trees and individual trees within clusters. These include a lost white birch, a lost ash, and lost hemlock clumps in the northern portion; in the southern portion, a number of ash, maples, and oaks have disappeared. Losses of a large American elm, lindens and other trees in the lawn in front of the Mansion have opened a direct view to and from the Mansion across the lawn which contrasts with the filtered view through trees of the 1920s. The growth of volunteer trees has also occurred, further changing the character of the East Lawn. This volunteer growth includes a white oak and a bitternut hickory in the northeast portion of the East Lawn.

Changes have occurred to the non-vegetative features of the East Lawn as well. The Rose Cottage, for example, was originally sited during the Gould years in a grove of lindens, as seen in Figure 11. However, it was relocated to a new site slightly to the south, as seen in Exhibit 17: Built Elements, Partially Remaining. This relocation is a factor in the change in character of the East Lawn. A change in the East Lawn and south buffer zone was made when the parking lot east of the Kennel, as marked on Exhibit 21: Built Elements: New, was constructed. This new feature required the enlargement of the Kennel drive and the construction of a new segment of drive across the East Lawn to access the lot. Although the new drive is visible, the topography and plantings of the area generally obscure the parking lot (located in landscape analysis unit G, the south boundary) from view across the East Lawn.

E. Broadway Frontage
The street frontage of Lyndhurst is a landscape unit that has changed significantly over the years. The precise condition of the street front of the property during the Paulding era is unknown. The stone walls, Gate Lodge and Superintendent's Lodge all appear on the Merritt era 1873 map, as does the planting. A photograph from the Merritt period, dated 1870 (Figure VIII.3, Phase 1), shows this area newly planted with a sidewalk and narrow grass verge in front of the estate wall, which in turn had young, low evergreens—Norway spruce and arborvitae—planted behind it. A circa 1890 view (Cover Figure, Phase 1) shows street trees planted in the grass verge and the evergreens grown taller, blocking some views and purposely shaping the street face of Lyndhurst. The street trees lining both sides of Broadway are seen closely spaced. By the 1920s these combined plantings created a somewhat variable, vegetated edge which generally screened the property from carriages and pedestrians on Highland Turnpike (Broadway). As seen on Exhibit 12: Period of Significance, these plantings were clustered at the entry and the property corners, with evergreen groups along the wall. Some breaks occurred in this linear planting, notably at the buttonwood and black walnut trees and between the entry and the first cluster to the south.

Today, although vegetation still defines this edge, the boundary between Lyndhurst and the street is quite different in its composition and vegetative character. As indicated in Exhibit 20, Vegetation: Lost, street trees no longer line Broadway and the many of the tree plantings within the wall have been lost since the period of significance. Today these plantings are composed of some remaining historic trees, notably Norway spruce, and a variety of volunteer trees and remnant shrubs, including young oaks and maples, ash trees, and rhododendrons. Three of the spruce, and some other trees on the property, were planted as replacements in 1971-72 under the direction of Thomas J. Kane. Volunteer vegetation is also a significant component of these plantings, and includes Norway maples and red oak saplings near the southern property boundary. Recent clearing of this area has suppressed a rampant growth of poison ivy, porcelain berry and other invasive vegetation, revealing older trees and stumps of trees that were presumably present during the period of significance. These trees include a lost Amur cork tree, a black walnut, a red oak, mostly lost rhododendron clusters, and an extant red oak (48" dbh), buttonwood (+72" dbh that predated the front wall and has grown to fill the gap) and several larger Norway spruce. While losses are notable, the remnant plantings, stumps,
Figure 11. The diminutive Rose Cottage is shown located in a grove of lindens on the East Lawn. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3415, New York State Historical Association, Cooperstown.
photographs and historic maps provide a detailed level of documentation of vegetation existing during the period of significance.

F. North Boundary
By the end of the period of significance, this relatively small zone had been transformed from a pear orchard with a lodge, to an area with remnant orchard and structures used by the estate residents. These structures included the Superintendent's Lodge near the service entrance, the Swimming Pool, and a small garage. Circulation to each of these buildings was provided by paths or narrow drives to each structure. Overall, the area was screened from the adjacent east lawn by vegetation. Plantings of a large number of evergreen trees, some deciduous trees and flowering shrubs were particularly dense on the west side of the swimming pool and south of the Superintendent's Lodge. This area also contains a few pear trees remaining from the pear orchard as well as several specimen evergreen trees.

Today, like much of Lyndhurst, the area’s spatial configuration and structural elements remain generally intact although somewhat less defined. As shown in Exhibits 15 and 17, the three buildings are all extant, though the Swimming Pool and the garage are shown as partially extant, due to deteriorated conditions. The garage has also been moved from its original location. The Superintendent's Lodge is in use as a residence. The paths leading to these structures have been obscured or altered from the historic configuration.

The area is still well-screened, although the screening vegetation varies from what it was at the end of the period of significance. The Norway spruce stands at the Swimming Pool have been replaced by a mix of volunteer deciduous vegetation and Norway spruce, which in some areas is overgrown. Extant historic vegetation includes a few pear trees and a number of shrubs, such as jetbead. Shrub masses have become mixed with invasive species and some original plants have been lost. As shown in Exhibit 18, Vegetation: Remnant Shrubs, these mixed shrub groupings are in remnant form, altered from their historic condition.

G. South Boundary
This property border was originally an informal, mixed species vegetation band. Two groups of spruce extended along the property boundary from the southeast corner, with a gap between them. Moving west, a smaller group of evergreen trees and shrubs was followed by hickory, yellow wood, oak and linden trees. Small and large gaps in these plantings provided views into the landscape of the neighboring estate property to the south. A wooded area surrounded the Kennel and Archduke's Cottage. This mass of boundary vegetation extended to meet the larger vegetation mass east of the Coach House.

Between the former Archduke's Cottage and Broadway, the conditions of the southern boundary have changed. During the period of significance, this edge was defined by stands of Norway spruce and deciduous trees. Since then, some trees in these boundary plantings, including spruce and oak, have been lost, making the views to the next property more open. The parking lot constructed in 1993 was inserted into the border plantings along the property edge at a wide point in the vegetation near the Kennels. Some large trees remain in this area and new plantings have been added. As the plantings mature they will fully screen the parking area from view. Overgrown vegetation has been removed from the area of the demolished Archduke's Cottage and historic vegetation in the area has also been lost. The curving drive that connects the Kennel and the Coach House remains and the steps linking the drive segments at the curves are also partially remaining.

IV. ANALYSIS SUMMARY: INTEGRITY
By examining the character-defining features of each unit of the Lyndhurst landscape through the analysis exhibits, analysis text, and the photographs dating to the period of significance, it becomes clear that many of
the historic features of the estate landscape and some of its original character are intact. In other words, the apparent integrity of the landscape is sound, and the property reflects the character present during the period of significance. Exhibits 14 through 22 clearly demonstrate this in a graphic manner, revealing that a large amount of vegetation and built elements from the period of significant are extant. However, as the analysis text points out, the graphic technique used to present this information, may slightly exaggerate the extent to which these features are present in the landscape, since some extant features, especially the vegetation, may not be in excellent condition. In addition, some feature losses have occurred and in some cases compromise character. It should be noted that vegetation losses are primarily due to natural maturation and death of vegetation over time, are well documented, and are reversible. Partial or complete losses of built elements, including paths, benches, lights, and a few structures are also well documented.

The analysis also reveals that overall historic character has changed in several areas. For example, the loss of the Greenhouse as a functioning structure and the loss of the Border Garden and the symmetrical plantings in front of the Greenhouse have altered the landscape character of the property, as have the losses of nearly all of the agricultural features of the West Lawn; of several notable hemlock groves; of hemlock and rhododendron screening of the Coach house; of the benches, rockwork and plantings of the Rockery; and of the East Lawn’s birch, elm, and other specimen trees, not to mention the losses of tree groves and shrub groups throughout the Lyndhurst landscape. In addition many character-defining features are in a deteriorated state today and could be lost in the near future. For example, it is anticipated that over the next decade more trees present during the period of significance, notably the beech groves on the Main Drive and several horsechestnuts, are likely to succumb to age and disease, further altering the landscape’s historic character. Recent additions have made alterations in landscape character as well. These include the maintenance building, the parking lot and the birch trees in the fern garden.

The detailed analysis in this report, essentially a comparison of the landscape today against the period of significance, enables an assessment of the landscape’s integrity. According to the National Register, integrity may be defined as the ability of a property to convey its historic significance, that is, whether or not sufficient historic fabric and character remain so that the property may be understood within its historic context. Integrity is assessed by examining seven aspects of the property. These aspects are: location, design, setting, materials, workmanship, feeling, and association. For the Lyndhurst landscape, these aspects are considered separately below.

**Location.** Lyndhurst’s integrity of location is high, since it exists in the location where it has always existed and includes all of the acreage of the original estate.

**Design.** The Lyndhurst landscape has moderate integrity of design. As shown in the analysis of character-defining features earlier, the overall design of the Lyndhurst landscape, in the form of its basic spatial organization, is predominantly intact. Important units of the landscape, such as the Mansion, East and West Lawns, the Greenhouse and its environs, and the Main Drive are either fully or partially extant, so that the basic structure of the estate landscape design is clearly evident. However, portions of the designed landscape have also been lost, and these losses contribute to a decreased integrity of design. For example, the missing productive landscape features such as the vineyard, cherry orchard, and vegetable gardens, and their geometric forms, contribute to a decrease in integrity of design. Similarly, additions and losses of vegetation, such as the growth of trees along the Hudson, obscure the original spatial design of the property. In addition, although the remnant Greenhouse conveys some of the intent of the intensive horticultural display areas in the landscape design, its missing garden setting and function lessen integrity. Other missing and degraded features, such as the Rockery and its pedestrian path, the Treehouse, and shrub clusters along the Entry Drive further decrease integrity of design.
Setting. The Lyndhurst landscape exists in a significantly altered setting, and integrity of setting is therefore moderate to low. It should be noted, however, that many historic properties of Lyndhurst’s size have a decreased integrity of setting, due to urban and suburban growth. For Lyndhurst the most important changes to setting include the loss of the estate’s farm and forest lands to the east of Broadway and the transformation of the area around Lyndhurst from rural to suburban. These changes are seen in intensified office and commercial land uses and increased residential density around Lyndhurst. Regional growth also prompted the construction of the Tappan Zee Bridge within the Lyndhurst viewshed. Changes within the property itself have altered the perception of the Hudson River as an important element of the estate setting and increased development along the river is partially visible from Lyndhurst. However, Lyndhurst is fortunate in that its closest neighbors, at the north and south boundaries, still exist, as they did during the historic period, as large, privately-held land parcels. This allows the property to maintain its historic feeling of privacy and separation from the world around it.

Materials. The landscape’s integrity of materials is moderate. Although many of the landscape’s materials are original and intact, significant character changes have occurred to the materials which comprise this landscape. Because many are vegetative materials, natural growth and losses have contributed to character change that lessens integrity. For example, the growth of trees along the entry drive has changed significantly the scale and experience of this feature of the landscape. In a similar vein, growth of trees along the river has blocked views from the Mansion while opening up views along the lower drive. Important plant materials in vegetable gardens are missing. Materials of constructed features have also deteriorated or been lost. The main entry drive is now asphalt, not gravel; the pedestrian paths between the Mansion and Bowling Alley, once concrete, are now deteriorated gravel; and the Greenhouse is missing many of its original materials. These losses all contribute to lessened integrity of materials, despite the relative high integrity of materials exhibited by the Mansion, the Laundry, and many areas of intact historic plantings such as a portion of the apple orchard.

Workmanship. Integrity of workmanship is moderate. The workmanship of the extant built elements is still evident. However, much of the workmanship of the maintained estate landscape has been lost including losses of ornamental garden beds and elements of the productive landscape, such as vegetable gardens and vineyards. Losses of details such as garden benches around trees, footpaths, steps, etc. also contribute to a decrease in integrity of Workmanship. As demonstrated by period photographs, at the end of the period of significance, the overall perception of the landscape was in a high level of care, function and health demonstrating a level of workmanship. The existing estate landscape conveys a less well-tended perception today reducing the overall integrity of workmanship.

Feeling. Integrity of feeling is moderate to high. In many ways, the Lyndhurst landscape retains much of its feeling of a private estate. The entry gates, long driveway, remaining walls and enclosing vegetation around broad lawns helps the landscape retain its feeling of privacy, exclusiveness, and serenity. However, the degradation of the pedestrian paths and the detailed plantings and spatial organization along them compromises integrity of feeling. Feature losses and deferred maintenance, of both built elements and vegetation, have changed the feeling of the property, which would historically have been manicured and in consistently good order.

Association. This aspect of integrity is generally more important for properties associated with major historic events, such as wars, or major historical figures, such as presidents. However, because it retains its characteristic features, the Lyndhurst landscape may be considered to retain its associations with its owners and designers, as well as its associations with the design influences which shaped its appearance.
Overall Integrity. When considering simultaneously all seven aspects outlined above, the overall integrity of the Lyndhurst landscape may be considered to be moderate. In other words, the Lyndhurst landscape is clearly a special, carefully designed landscape that contains most of its significant elements. However, losses have occurred and impinge on historic character. It should be noted that many of these changes have occurred to objects, viewsheds and vegetative features, and may, in fact, be reversible.

The analysis of character-defining features and assessment of integrity are valuable tools in proceeding with the preservation of the historic landscape at Lyndhurst. The selection of a preservation treatment for the landscape is a decision stemming directly from these analyses, as will be seen in the next chapter.
CHAPTER III: EXPLORING LYNDHURST LANDSCAPE TREATMENT

I. INTRODUCTION

As noted in the discussion of significance, the period of significance for the Lyndhurst landscape is 1836-circa 1920, a period which encompasses the full extent of important accretions in plantings and design changes occurring on the 67-acre property. The period closes with the last significant layer of changes to the landscape under Helen Gould Shepard in the two decades following the death of Ferdinand Mangold in 1905. As described and illustrated in the analysis, since that time, changes to the landscape have occurred. Losses due to age and insufficient maintenance and alternations to accommodate public visitation are the most prevalent changes that have taken place from the 1920s to the 1990s. Some of these changes have altered the character of the landscape and its integrity (the degree to which the landscape of the significant period remains intact today).

The purpose of any treatment is to retain all remaining historic character and features, to mitigate negative changes when possible, to prevent future such changes from occurring and to address the range of issues required at the property while achieving these purposes. This is accomplished by selecting a treatment approach that is most appropriate for the site. Treatment looks at the property as a whole, and based on the integrity, significance, proposed uses, level of documentation, interpretive goals, and management capabilities, establishing a comprehensive framework within which work on individual features may be proposed and implemented. Stated a different way, the selected treatment acts as a preservation philosophy which guides decision-making about physical changes to the property.

As revealed in the Phase I report, which addressed history, existing conditions and context, and in the analysis and significance components discussed herein, the Lyndhurst landscape is complex. In approaching treatment the level of available documentation is an important aspect of the considerations. Authenticity in any intervention is a goal, so a basis in explicit documentation is desired for determining a sound approach while limiting speculation. While historic evidence is sufficient for understanding the overall form, spatial organization, and visual relationships within the entire landscape at the end of the period of significance, details of plantings and built elements within some areas are not well known. A valid and important treatment objective for Lyndhurst is to restate, to the greatest possible extent, the visual and spatial organization of the entire landscape.

II. TREATMENT OPTIONS FOR THE LYNDHURST LANDSCAPE

The Secretary of the Interior's Standards for the Treatment of Historic Properties recommends four possible preservation treatments: Preservation, Restoration, Rehabilitation, and Reconstruction. These treatments propose different levels of intensity of activity on a landscape. Preservation is a low-impact approach, in which stabilization, repair, and replacement-in-kind of character-defining features is emphasized, with minimal change occurring on the property. Preservation is an appropriate choice when many elements are intact, interpretive goals can be met within the existing conditions, or when financial resources or staffing are limited. Preservation can also be viewed as an interim treatment until such time as additional documentation allows for restoration or additional resources are garnered to address more ambitious treatments. In other words, Preservation, with its goals to retain and maintain the existing historic fabric, is in fact the treatment approach on which the other three, more intensive action treatments are based.
In contrast to Preservation, Restoration is dependent on high levels of documentation to perform the work with a high degree of authenticity. A Restoration treatment seeks to first preserve, through stabilization and repair, all historic features present during the period of significance, and then to replace and recreate missing features. Strictly speaking, a Restoration treatment would also require the removal of subsequently added features, recapturing the overall character and details of the landscape. The third treatment, Rehabilitation emphasizes the addition of new, compatible uses to the property, implemented in a manner sensitive to conditions during the period of significance. Finally, Reconstruction of a landscape is the most intensive of the treatments, involving a complete recreation of a missing historic landscape or a complete landscape unit within a landscape. It is rarely implemented because highly detailed documentation would be required to construct an exact replica.

Although these treatments imply different levels of action on a property, they share an important commonality: All treatments avoid anachronistic conditions, where features which never coexisted historically are today placed together in a landscape. In addition, it should be noted that the choice of a more limited treatment, such as Preservation, for the landscape as a whole, does not preclude the restoration or reconstruction of lost or partially remaining individual feature within the landscape.

The following sections broadly examine the appropriateness of applying these four different treatments to the Lyndhurst landscape. Definitions are quoted from the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes, final draft, May 1996. In all cases, it is assumed that the period of significance of the landscape encompasses the years 1836-circa 1920, with the result that any replacement or restoration of individual landscape features is considered primarily to the end of the period, or circa 1920. In other words, since the end of the period represents the sum total of the design changes on the property, decisions to replace features are based on the date of 1920 rather than earlier, to avoid anachronistic placements of features within the landscape.

A. Preservation
Preservation is defined as

the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction.

In other words, Preservation emphasizes the property's current conditions as a full record of the changes that occurred to it. Preservation actions, including stabilization, repair and replacement in-kind of minor missing elements, are appropriate stewardship goals for an historic property. Preservation actions are included in the selection of restoration, rehabilitation or reconstruction.

At Lyndhurst, Preservation of the landscape would involve the ongoing stabilization of the existing conditions of the property. For example, a continued regime of maintenance and pruning of existing specimen trees would be a priority to aid in their long term health. Invasive volunteer vegetation would continue to be removed to protect and encourage healthy growth of historic plants. Stabilization of deteriorating or partially extant built elements, including remnant paths and steps, deteriorated drives and lights would also occur. Repair of features may also include the partial replanting of specific vegetative features. Removals of non-historic structures and features would not be encouraged, and the maintenance shed and new parking lot would remain in their present configurations.
Preservation would be an appropriate treatment at Lyndhurst, given the fact that it is an evolved landscape and that many features, or portions of features present during the period of significance, remain in the current landscape. However, the recapture of lost features and a more ambitious approach to partially remaining features would not be appropriate under a Preservation treatment. Because it implies ongoing stewardship of extant historic elements, Preservation is recommended as a component of the treatment for the Lyndhurst landscape but this treatment alone will not fully achieve the interpretive goals for the property.

B. Reconstruction
Reconstruction is defined as

the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving...landscape...for the purpose of replicating its appearance at a specific period of time and in its historic location.

Since Lyndhurst is, in fact, a surviving landscape, Reconstruction is not an applicable treatment for the property as a whole. It may, however, apply to a lost landscape feature, such as the border gardens, if it could be based on detailed documentation.

C. Rehabilitation
Rehabilitation is defined as

the act or process of making possible a compatible use for a property through repair, alteration, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Rehabilitation is a treatment that can be applied to the Lyndhurst landscape as a whole. The shift in use, undertaken in 1964, has been from private estate to public historic site. As an historic property the goal is the presentation of Lyndhurst and its story to an increased number of visitors in an authentic manner. Since these goals can be met without significant change to the landscape and because the degree of authenticity within the landscape is not a priority of Rehabilitation, this is not an appropriate treatment.

D. Restoration
Restoration is defined as

the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.

The goal of a Restoration treatment is to provide a highly accurate portrayal of the landscape at a particular point in time. Restoration is an appropriate treatment for Lyndhurst in that a restored landscape would present as accurate a portrayal as possible of the estate during its period of significance. At Lyndhurst, the selection of Restoration as an overall treatment would mean returning the landscape to the end of the period of significance, circa 1920.

Restoration directs the removal of non-historic features as well as the replacement of missing features. Given the existing conditions, a number of character-defining features would need to be accurately
repaired or replaced. In considering the interpretive goals and management capabilities of Lyndhurst, three landscape zones are a priority:

A. West Lawn & Hudson River Frontage  
B. Entry & Main Drive  
C. Greenhouse & Environ

These three areas are the zones that express the design ideas of the properties owners in the greatest level of detail. Documentation for the priority units is relatively good and can be applied consistently to the recapture of spatial organization and, in many areas, also to the recapture of details without undue speculation. The balance of the estate landscape, including the East Lawn (D), Broadway Frontage (E), North Boundary (F) and South Boundary (G), provided carefully articulated visual and spatial context for the three priority landscape units. Documentation for these additional landscape units is relatively good and it can be applied consistently to the recapture of spatial organization and visual relationships. Information on specific details varies. Where possible and desirable from an interpretive or management viewpoint, details can be restored. For example, where plantings are concerned, specific lost trees, documented in the first report, can be replaced in-kind and in-location. In keeping with the multiple issues requiring consideration, the treatment of the Lyndhurst landscape will focus on the restoration of spatial and visual organization throughout the landscape. In addition, recapture of the authentic details, to the extent that documentation allows, will be pursued within the three priority units and in other units where desired. The implementation of a Restoration treatment will be explored in some detail in the following chapter.

IV. SUMMARY

Based on the analysis of character-defining features and on the examination of implications of the four treatments of historic properties proposed by the Secretary of the Interior, it would appear that Restoration is the most appropriate and applicable treatment for the Lyndhurst landscape. The next step in developing a plan for implementing this treatment is to detail the actions desired for the landscape features within each landscape unit considered in the analysis section. These actions may then be described as individual projects, which may then be prioritized for implementation based on a number of factors including purpose, urgency, cost and staff support.
CHAPTER IV: RESTORATION TREATMENT FOR THE LYNDHURST LANDSCAPE

I. INTRODUCTION

A basis in historical facts is the springboard for a Restoration treatment. Planning for implementation is grounded in historic documentation, which, for the period of significance, is quite voluminous although inconsistent in coverage. In a number of areas a high level of detail is available with good period photo documentation. In other landscape units the 1905 survey may be the most current resource for the 1920s period. Exhibit 12: Period of Significance, 1836-Circa 1920 captures the current understanding of the conditions that the Lyndhurst landscape will be restored to. Photographic documentation for this era focuses on the views taken by noted photographer Mattie Edwards Hewitt, circa 1920, a selection of which are included in this document. As noted in the previous chapter, the level of documentation available allows for the restoration of spatial organization and visual relationships throughout the landscape, with accurate detailing recaptured to the extent possible. Because resources are limited, priority is given to the three most important landscape units: A. West Lawn & Hudson River Frontage; B. Entry & Main Drive; C. Greenhouse & Environ.

The implementation of the landscape restoration is discussed here in the sequence of the landscape units, and refers to Exhibit 24: Landscape Restoration Treatment, 1996-2006. This plan portrays the elements of the restoration that can potentially be undertaken within the next ten to fifteen years. Under each unit the various aspects of the recommended restoration treatment are discussed. In each case the proposed restoration of spatial organization and visual relationships for the landscape unit are described first, followed by the details of restoring circulation, structures, small scale objects and vegetation. On the plan, all replaced trees are shown in a consistent, small size with cross (+) centers. Shrubs are shown in masses and require, as with other aspects of the landscape restoration treatment, comparison to Exhibit 13: Existing Conditions 1996 to see the level of change proposed.

II. PRIORITY LANDSCAPE RESTORATION UNITS

A. West Lawn & Hudson River Frontage

Spatial Organization and Visual Relationships

The restoration of the West Lawn includes several actions that would reshape the characteristic spaces of this sloping area. In general, the area was more open in 1920. The sloping lawn was highlighted with a frame of vegetation, which was permeable to views of the Hudson River to the west but formed a visual barrier along the north and south property lines. Vegetation removals to reopen the West Lawn and recapture the Hudson River views would therefore be the first priority task.

Tree removals in this landscape unit would include clearing of the area as seen in Figure 1 and Figure 12, to reveal a more open, rolling turf with selected vegetation. The copper beech tree west of the Mansion is shown as replaced. All beech on property are in decline and are anticipated to be replaced in-kind and in-location when they have succumbed. Since the beech are dying from amarella, a root fungus that transfers from tree to tree through the soil, it is important to sequence their replacement appropriately. Professional advice on removing the fungus from the soil should be sought, and care should be taken to remove enough of the stumps and root masses to allow accurate placement of the new trees.
Figure 12. West Lawn and Mansion, with concrete path and flowering trees in view. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3410, New York State Historical Association, Cooperstown.
Tree removals along the Hudson River are required to reopen river views. Historic photographs, such as Figure 4, when viewed closely, show the shimmering water viewed through open stands of trees. Exhibit 24: Landscape Restoration Treatment therefore indicates three view slots in areas where historic plantings seem to have been less dense. These relatively open view areas are located: at the former south river cottage area; at the dock; and in the area between the north side of Bowling Alley and the evergreen planting at the north river cottage. While the trees in linear patterns along the lower river drive, notably lindens, oaks and maples, are retained, their limbs are to be raised, as they were historically. Other trees in the area, notably invasive, deteriorating, and volunteer trees, are to be selectively removed. In the northwest corner around the north river cottage the removal mature evergreens and their replacement with small young ones will serve to open the area to light and views.

Non-historic trees along the walks, and in the area of the Rockery and the Treehouse would also be removed. A number of non-historic trees are currently growing in the southwest zones of the former vegetable garden/nursery, vineyard and cherry orchard, and these would need to be removed. There are also several individual trees in the West Lawn that are were not present in the period of significance. Because these trees alter the historic spatial configuration of the area, they would need to be removed. The outside row of evergreen trees around the former Laundry are also shown as replaced. Originally intended to screen the drying yard and building from view, some of these evergreens have been lost and the remaining ones have matured with branches raised up so that relatively open views to the building are available. The replacement of the outside row is proposed as a first step in reinstating the screening effect. As this first group of small trees fills in, about ten years after planting, the interior trees could be removed and replaced, cycling the entire planting back to its screening intent.

Circulation
Reconstruction of pedestrian walks on original alignments would provide visitors with a functional path to access the Rockery, Treehouse and Bowling Alley. These paths should be rebuilt as they existed historically, to include a flight of steps near the Bowling Alley. The percent grades along the paths range from a low of 8% to a high of 25%. Given the topography in the West Lawn, it would not be possible to regrade this path to comply with disabled access guidelines. Handicapped persons could instead access this area by vehicle along the loop drive. The loop drive is in poor condition today, and should be repaved, either with its historic gravel base or in asphalt, if increased traffic is expected in this area. In either case, its partial bluestone curbing should be repaired or replaced in-kind. A restoration of the drive would also require the replacement of the semi-circular drive segment that likely served the dock area. The walk to the dock would be replaced in the future and, as a long-range consideration, the dock itself could be replaced. The presence of the dock would afford Lyndhurst visitors an open area out over the water from which to experience the river. The replacement of the dock would also open the possibility of water access to the estate. This project would require a number of approvals, including a state environmental impact approval. The feasibility of obtaining such approvals should be tested in the near future to gain a sense of whether a dock replacement project is a viable option.

Along the Hudson River Frontage the walks encircling the two riverside cottages would be replaced. It is also recommended that the footprint of lost cottage be created in the ground plane, possibly with a paved area of the proper size. An interpretive plaque placed at the site could explain the lost cottage. This cottage also had a walk spur leading to a bench facing river and related evergreen tree planting that should be restored.
Structures and Objects
A number of period built elements would also be repaired or reconstructed in this landscape unit. These include the Rockery stonework, steps and benches partially seen in Figure 3, the Treehouse seen in Figure 2, and the polygonal benches around trees, seen in Figure 4. In addition, the light posts and luminaires along the loop drive require repair and replacement. Renewal of the electrical supply and control system that serves them would also be necessary.

Vegetation
The historic semi-dwarf apple orchard should be filled in with additional trees to complete its historic grid. The species in the orchard were recently identified by NPS Olmsted Historic Landscape Center. The antique apple species remaining from the Merritt-Mangold era are Northern Spy, Thompkins King, Ben Davis, Roxbury Russet and two variations of Baldwin. Both modern and historic apples were used in the 1970s plantings that partially augmented the orchard however these trees were not placed in the orchard grid. The treatment intent of restoring spatial organization would be served by retaining these 25-year old trees, but they should be transplanted to positions within the grid. Such transplanting would require their roots to be pruned for two years prior to moving them. Additional trees are needed to fill the grid, and a nearby collector has offered Lyndhurst about 400 dwarf apple trees. The collector’s trees are grown on two types of dwarf rootstock. If this donation is accepted, those maturing to a stature of at least 15 feet should be used in the apple orchard. Semi-dwarf trees from this collection could also be used to replant the skewed grid of the former Cherry Orchard. Again, this action would replace the spatial organization of the grid of fruit trees while not specifically replacing the long lost unidentified trees in-kind.

The restoration of the orchards would bring an important living collection to Lyndhurst, one that would augment site program opportunities. Because the historic landscape at Lyndhurst is an interpretive and programmatic asset to the architecture, the orchard trees and large collection of historic fruits could be the focus of a harvest festival, fruit sales, or demonstrations such as cider making and fruit drying, all activities which would encourage visitorship.

The area of the former vegetable garden and/or nursery could be developed as gardens if desired. However, the main goal in the restoration treatment is to have this space be open, without a dense canopy. In order to define the space as being different from the lawn, one approach would be to sow it to wildflowers. Another approach would be to mow the area less frequently so that a difference in grass height would exist and define the area. A small area of rows, possibly a small vineyard stand, is shown between the garden beds. This area could be replaced as vineyard or possibly by espaliered fruit trees. The large vineyard along the northwest edge is also proposed for replacement. However, since recapturing spatial organization is the most important goal of the restoration, a simple approach might be to only replace the historic posts and rails on which the grapes were grown. These posts and rails would provide the spatial construct of the vineyard without the maintenance requirements of the grape vines themselves. Of course, if maintenance staff can tend the area, grapes or espaliered fruit trees could be added to provide the accurate, vegetated appearance of the posts and rails. Even the addition of one grape vine at the south end of each fence section would create the sense of the vineyard when viewed from the Mansion and the walks. Such a reduced or limited planting would require about 50 vines rather than five times that amount.

There is one important tree replacement issue on the West Lawn. Cedar apple rust, a fungal disease, can occur when junipers and apples are planted within 200 feet of each other. Since the apple orchards are to be restored, the junipers seen in historic views along the path near the Treehouse may not be replaced in-kind. Black American arborvitae (Thuja occidentalis) is recommended as a substitute for eastern red cedar (Juniperus virginiana).
Shrub renewal is required in every area shown as a shrub mass on Exhibit 24. This shrub work will require planting additional shrubs to match existing shrubs and will also require adding lost shrubs of other types. Pruning and renewal of remaining shrubs will also be necessary.

Beds of ground covers, bulbs, perennials and shrubs were also found in the West Lawn and should be replaced in-kind. This effort may require some additional study of historic views to determine the types of flowers, shrubs and perennials to be planted in each area of the West Lawn. For example, Figure 3, the view of the paths in the Rockery, shows a mass of Lily-of-the-Valley on one side of the path and low plantings along the other. Low plantings are also seen in the background of the Treehouse view, Figure 2, along the walk framed by evergreens.

B. Entry & Main Drive
Spatial Organization and Visual Relationships
As indicated in Exhibit 23: Main Drive Analysis, the Main Drive was designed as a choreographed spatial sequence with the drive alignment, topography and plantings working together to close, open and frame views. The variations along the drive sequence as they were intended have changed to an extent over time, due to tree and shrub deterioration and loss. Assuming that the drive was to reach its design and scale intent when the plants were mature, decline and loss of plants along the drive indicate that the design has passed its original intent. The goal of the restoration treatment is to recapture this carefully planned sequence to the extent possible. The primary changes that have occurred to the drive sequence--a few additional built elements, lost trees and lost shrubs--will each be addressed under their appropriate headings below.

Circulation
Although the Main Drive retains its original width and alignment, two changes have occurred to the Main Drive's original configuration. One is the placement of a two car, nose-in parking space at the eastern edge of the larch grove. This is recommended for removal and replacement by a smaller parallel space, shown on Exhibit 24 between shrub masses on the north side of the drive. This space (8' by 20') should ideally be paved with grass pavers rather than asphalt so that it is less obtrusive. The other change to the Main Drive is an enlarged width to the drive which accesses the Kennel and the new parking lot. This recent alteration was required for two-way access and will remain. To return the only element of pedestrian circulation to the Main Drive, the walk encircling the Gate Lodge is proposed for replacement.

Structures and Small Scale Objects
A small structure is provided for the property guard on the north side of the drive near the Gate Lodge. This structure is located at a distance from the gate to provide vehicle stacking room. Although it is a little intrusive on the historic scene, this structure needs to remain to serve its current purpose.

Vegetation
The vegetation of the Main Drive is the feature that has changed most significantly. Removals and replacements of vegetation therefore need to occur in several areas. As shown on Exhibit 24, declining trees are generally shown as replaced in-kind and in-location, while non-historic trees are removed. For example, the European beech (*Fagus sylvatica autotropurpurea* and *Fagus sylvatica pendula*) are shown as replaced while a multi-trunk ash and several small trees are removed.

Beginning at the Entry, the deciduous tree grove to the south side is proposed for replanting as are the shrubs around the Gate Lodge and within the grove. Likewise, bolstersing of the remnant shrubs into shrub masses on the opposite side of the drive is shown. Replacement of six eastern larch (*Larix decidua*) will fill in the lost elements of this larch grove. The shrub mass on the drive side of the grove is to be replaced. Following
on, the pin oak (*Quercus palustris*) grove, now reduced to one tree, is to be augmented by three new trees, while the magnolia and camphor elm in front of the grove are retained.

Two historic views, seen in Figures 5 and 6, show the Fern Garden in the 1920s as an area with dappled light under the evergreen canopy and masses of ferns below. Recently, Heritage birch trees have been planted in this location, providing a somewhat different character than the historic views. Because this area currently functions as an educational area and provides an important volunteer opportunity, these trees are not recommended for immediate removal. However, over the long term, and in the distant future, the restoration of this area to its prior evergreen canopy would probably be desirable. Exhibit 24 shows how the area would look with Norway spruce (*Picea abies*) and eastern hemlock (*Tsuga canadensis*) replaced in the locations where stumps of these evergreens are now located. Ideally, over the long term, the Fern Garden would also be planted more densely with ferns in larger masses, as shown in the historic views. Opposite this area, the six recently planted Eastern hemlock trees are shown in a larger grove with six additional trees, in their historic locations.

Two matching masses of fuzzy deutzia (*Deutzia scabra*) flank both sides of the drive after these paired evergreen groves with some mock orange (*Philadelphus virginiana*) added to the group on the north. The mass on the south remains and would be the most likely source to propagate (from cuttings) shrubs for the missing mass to the north and to augment the south mass.

Replaced European beech trees are shown along the next stretch of the drive with the existing maple and tulip poplar grove on the north retained. Some in-kind replacement of deteriorating tulip poplars may be required. The loss of the beech groves will open the drive considerably. For a period of time this area will lose its intended scale and level of enclosure. However, in a few decades the trees will begin to form a mass. Interestingly, the 1873 Merritt map shows about twice the number of trees than are present in the landscape today. Perhaps the planting of more trees, at closer spacing, should be considered with the understanding that in perhaps 25 years the removal of every other tree would be required. An overplanting would also provide some choices at the time of removal and some insurance against early losses. Three American elms, (*Ulmus americana*) are shown as replaced to the north of the beech grove. A disease resistant cultivar is recommended.

The spruce grove on the north followed by a pine and linden grove on the south are shown as retained although a few stumps are present. The canopy of the remaining trees is too dense to allow for internal grove replanting in the near future. However, the Austrian pine (*Pinus nigra*) is suffering from diplodia and is likely to succumb in the future. When removed, these pines should be replaced with an evergreen of similar form and texture that is disease resistant. In front of the pines the rhododendron mass should be augmented as needed. Opposite the pines two eastern larch are shown as replaced with a replaced European weeping beech behind them.

As the drive bends toward the Mansion, three deciduous trees are to be replaced and a large evergreen grove is also to be replaced. Similarly, the detailed planting, with periwinkle groundcover, narcissus, lilies and ferns, shown in Figure 7, should be replaced in the island along the drive. Although there are some losses in the mixed grove north of the Mansion, once again replacement within the grove is not possible due to competition for light and nutrients. However, the trees on the lawn opposite the Mansion, seen in historic views, are shown as replaced. As the drive bends toward the Carriage House, the mass of rhododendron seen in the background of Figure 13 and from the opposite direction in Figure 14, would be replaced to screen and frame the relocated Rose Cottage. The large mass of rhododendron is to be replaced on the east side.
Figure 13. Boy with sandbox on East Lawn. Note shrub mass and tree clumps along drive in the distance. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3405, New York State Historical Association, Cooperstown.
Figure 14. Rhododendron masses with deciduous trees behind. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3439, New York State Historical Association, Cooperstown.
of the drive while smaller masses at the intersection with the loop drive are augmented. At the face of the Carriage House, which ends the drive sequence, evergreen groves are shown as replaced.

C. **Greenhouse & Environ**

*Spatial Organization and Visual Relationships*

The largest change within this landscape unit is the loss of detailed plantings and the transition to a predominantly turf landscape. For example, the loss of the symmetrical tree and garden plantings directly in front of the Greenhouse significantly alters the character of this focal area within the Greenhouse unit. The topography of the area shows some traces of the former plantings and gardens. Documentation is good and therefore the spatial organization as well as many of the details of this unit can be restored.

*Circulation*

Restoration of circulation around the Greenhouse would include the extension of the internal drives to the west and east to recapture their former alignment. The drives around the new Maintenance area would be reshaped and the remnant drive along the arborvitae hedgerow repaved with gravel. The drive section between the Rose Garden and the Border Garden is also recommended for recapture. The turf paths between the Border Garden beds are seen in historic views, such as Figure 6. These paths remain, but are no longer defined by the garden beds. In order to sustain foot traffic when the gardens are restored, these paths could be reconstructed so that they will resist compaction and support the increased foot traffic due to visitors. This might be accomplished with a custom soil mix or by using a grass paver system such as "Grassrings." The narrow footpaths near the Greenhouse are also to be restored.

*Structures and Small Scale Objects*

The current marble and iron structure in the center of the Rose Garden is a post-1920s addition. The structure present during the Period of Significance was a wooden octagon, seen in Figure 8. Eventually, when the current structure requires a substantial repair or replacement, a replica of the octagonal arbor should be built and placed in the center of the Rose Garden. The other object in the Rose garden, arched hoops over the walks that support climbing roses, as seen in Figure 15, remain intact. The preservation of these hoops will require rust removal and repainting about every five years. The metal portions in contact with soil may disintegrate over time, making the hoops unstable. These may therefore need to be regularly checked and repaired as required.

*Vegetation*

Twelve Japanese maple trees of various cultivars were symmetrically planted at the corners and centerpoints of the grass panels in front of the Greenhouse, as shown in Figure III.3 of the Phase I report. Only three of these trees remain. To replace the missing trees, the three remaining trees and the red-leaved Japanese maples on the north side of the West Lawn should be used as the source for cuttings for propagation. According to Lyndhurst gardener, Ralph Indivere, the trees along the drive matched the ones on the West Lawn, while others matched the remaining thread-leaved ones. One of two magnolias ornamenting the front of the Greenhouse remains and its missing twin should be replaced in its matching position with the same cultivar. The replacement of the maple and magnolia trees is an important step in the restoration of this area and should be undertaken as soon as possible.

As shown in Exhibit 24, the balance of the donated apple tree collection, growing on very dwarf stock, is indicated to be planted in the area between the Greenhouse and the new maintenance building. The small size of the trees would allow for a tight grid to be used and a large number of trees to be planted in this contained area. This area was formerly planted to fruit trees and vegetable gardens. The replanting of the area with dwarf

LANDSCAPES Landscape Architecture\Planning\Historic Preservation 61
fruit trees would aid in visually separating the maintenance building from the Greenhouse in a historically appropriate manner.

Matching pearl bush (Exchorhda) shrubs were centered between the Japanese maple trees along the drive. One of these shrubs remains in a declining condition, and cuttings should be taken from this uncommon shrub so that both can be replaced with young, strong shrubs in the near future. The mixed shrub mass to the south of the pearl bush should be augmented with the additional lilac, mockorange, pearl bush, dogwood, etc. to fill the bed area again. The arborvitae hedge is shown on Exhibit 24 as extended behind the Maintenance building, as is also indicated on historic plans. A Japanese barberry hedge remains in two locations, at the edge of the Border Gardens and along one side of Arborvitae hedge. In both locations it appears to have extended farther and is shown on Exhibit 24: Landscape Restoration Treatment as extended. In addition, it appears that a mass of rhododendrons formed the understory along the west end of the Border Garden. A few of these rhododendrons remain and these should be augmented to form a larger mass.

On Exhibit 24, the oval, round and squiggle-shaped, annual bedding gardens in front of the Greenhouse are shown in their locations seen in historic views of the period. The location and form of these beds is an important aspect of the spatial organization and character of the area. The general appearance of the beds was colorful and exotic with tropical plants used as accents. This character should be recaptured.

The Border Garden is seen in a few historic photographs. They were full of blooming plants, that appear to have been predominantly perennials. These gardens shaped their space and the absence of them removes an important element in this landscape unit. The form of the beds and a fullness with plantings would replace them as an attraction and space shaping elements in this landscape unit. Further study of available images would provide the beginnings of a plant list from which the gardens could be developed. The Rose Garden, located north of the Border Garden, was recently restored, and additional work on the garden is not a high priority at this time. However, some additional research on the types of roses planted by Helen Gould Shepard may be useful, and could lead to the planting of some historic cultivars in the garden if space should become available.

III. SECONDARY LANDSCAPE RESTORATION UNITS

The landscape restoration recommendations discussed for the three priority areas are the principal aspects of the Lyndhurst landscape restoration. While these comprise the desired initial steps, the other landscape units have experienced degradation of character and recommendations for their restoration also merit attention. These proposed actions are explained in the following sections.

D. East Lawn
   Spatial Organization and Visual Relationships
   The East Lawn, flanking both sides of the main drive, is characterized by individual trees and tree groves in open turf. The boundary to the south is an irregular edge of plantings along the property line while to the north it is a combination of plantings and the drive. The East Lawn provides a sense of depth and spaciousness to the property. Over time a number of important trees have been lost and the planted boundaries have altered. These plantings, which create the spatial organization of the East Lawn, are to be restored.
Figure 15. Rose Garden, showing beds and arches over paths. Photo by Mattie Edwards Hewitt, circa 1920. Photo #3434, New York State Historical Association, Cooperstown.
Circulation
The Croton Aqueduct route is the only circulation element of the East Lawn. Along the most travelled part of this right-of-way the turf turns to packed earth and mud. This change in materials interrupts the sweep of lawn. To recapture the continuous turf cover, this turf should be repaired by minor regrading, aerating, seeding and fertilizing.

Structures and Small Scale Objects
A flagpole near the west end of this area is the sole object within the East Lawn. It is believed to be extant from the historic period and should be maintained. The other structure in the East Lawn, the Rose Cottage, is proposed to return to its original location within the linden grove opposite the Mansion.

Vegetation
Exhibit 24 shows both the retention of mature trees and the replanting of a number of lost trees within the East Lawn. Both tree groves (composed of pin oak, American elm, European beech and silver maple) and individual trees, such as birch and gingko, are to be planted in-kind and in location. The East Lawn is used as the setting for large outdoor events with tents, parking and heavy foot traffic. After these events the lawn is aerated, fertilized and watered as required with good results. Appropriate lawn renewal practices should be continued so that the lawn remains healthy and green.

E. Broadway Frontage
Spatial Organization and Visual Relationships
Historically the Broadway frontage was a linear composition defined by two continuous rows of street trees. These trees were planted in a grass verge on the west side of Broadway and behind the Lyndhurst stone wall on the east. Stone walls existed along both sides of Broadway and there was a sidewalk along the west side. Over time, Broadway has been widened and the grassy verge and street tree rows were lost, though the stone walls remain. Heavy traffic and current space constraints will not allow for the recapture of a continuous row of trees. However, to reference the lost street trees, Exhibit 21 shows two groups of three tree each replanted at the Lyndhurst entry to provide a partial sense of the former organization.

Circulation
The flagstone sidewalk remains and should be protected from further encroachment by Broadway. Over time, as improvements in the public right-of-way are proposed, Lyndhurst should advocate the retention of the stone sidewalk rather than its replacement with concrete. This may mean Lyndhurst would even have to fund the resetting of deteriorated or lost stones. However, the sidewalk is an important piece of the property's historic fabric and provides a strong sense of how the area used to look.

Structures and Small Scale Objects
The stone walls are an important character element of the frontage and should be preserved and maintained as required. The main entry gate, widened for buses and two-way traffic, needs to be retained as is and cannot be restored to its narrower historic condition.

Vegetation
As noted above, six trees, two groups of three, are shown as replanted along the Broadway frontage. If space and sight lines allow, the replacement of these trees will provide a partial sense of the historic spatial organization of the Broadway Frontage. The small, granite curbed planters flanking the main entry are features seen in historic views. Their current plantings of hosta and annuals are contemporary in style. While color may be needed on the ground plane to attract visitor attention, these plantings should reflect their historic organization to the greatest possible extent. In a similar manner, while signs and event flags are a necessary element to attract visitors, their design and installation should not impinge on extant historic features.
Chapter IV: Restoration Treatment for the Lyndhurst Landscape

The boundary vegetation—trees and shrubs—located on Lyndhurst property immediately behind the stone wall has changed over the years due to maturation, decreased management, and volunteer growth. For this area, Exhibit 24 shows that trees existing in their historic locations be maintained, but that volunteer and invasive vegetation be removed and replaced with a more historically accurate grouping of plants.

F. North Boundary
Spatial Organization and Visual Relationships
The North Boundary area was traditionally heavily planted. While remnants of the earlier pear orchard remain, the evergreen groves with rare specimens and the shrub masses were the elements that shaped this space. Tree maturation, shrub decline and invasion of volunteer plants have all changed the composition of this area. The area is punctuated by three structures and their access routes which also shape the space. The restoration approach for this area focuses on maintenance while retaining existing features. In the future a more aggressive intervention will likely be required.

Circulation
The replacement of the access routes to each building is recommended- the circular path around the Superintendent's Lodge, the walk to the Pool building and the drive to the garage.

Structures and Small Scale Objects
The Swimming Pool building is deteriorated and efforts to stabilize and restore this building should be continued when funding is available. The garage is deteriorated and should be repaired.

Vegetation
The trees within the North Boundary are shown intact and should be maintained. Care should be directed especially to several rare evergreen trees. Each of the shrub masses requires renewal and augmentation to return them to health. These shrubs are mixed groups of lilac, mock orange, jetbead (Rhodotyphos scandens), Cornelian cherry (Cornus mas). Since no explicit documentation of species exists, they should be replanted with a mixture that reflects that current composition.

G. South Boundary
Spatial Organization and Visual Relationships
The South Boundary functions as a vegetated border to the East Lawn. Historically planted with a mixture of deciduous and evergreen trees it screened the Carriage House and the Kennel. Today it also screens the new parking lot. However, much of this screening function has deteriorated with the loss of trees, most notably the large hemlock grove screening the Carriage House. The intent of the restoration is to bolster this vegetated boundary to shape the spaces of the East Lawn as it did historically.

Circulation
The winding drive, steps and path between the parking lot, Kennel and Carriage House is the circulation element in this area. While the drive has been recently repaired, the steps should also be repaired so that visitors are provided with a safe route.

Structures and Small Scale Objects
The Kennel functions as a residence and should remain unobtrusive in its shady grove. The Carriage House was recently upgraded as a visitor's center and is in excellent condition. The site of the former Archduke's Cottage is recommended for interpretation with the footprint marked and an interpretive plaque provided.
Vegetation
Many trees are shown newly planted in the South Boundary area. These are located as shown on period sources with the exception of the screen plantings around the new parking lot. Additional plantings should be made to provide screening for this modern element.

IV. OTHER ISSUES

In addition to the treatment of the landscape units as described above, there are some additional issues that may be considered as part of the restoration treatment plan. For Lyndhurst, there are two important adjacent lands issues that ones that are worthy of continued efforts.

First, Lyndhurst has investigated the acquisition of 34 acres to the north and should continue to work toward this goal. The area would serve for parking and event space and to support the use of the greenhouse as an historic plant center if it were to be reglazed and programmed in the future.

Second, there is a long range desire to connect Sunnyside, one property away to the south, to Lyndhurst via a walking route along the riverside frontage. There is a potential that the neighbor between both properties would, at some future point, be willing to convey or sell a right-of-way. This linkage would be a useful feature for both historic properties and should continue to be pursued.

V. CONCLUSION

This restoration treatment plan, as illustrated in Exhibit 24, provides a firm foundation for the continued protection and enhancement of the Lyndhurst landscape. As noted, the goals of this plan are to restore the spatial organization of the landscape, with a priority focus on three of the landscape units which comprise the property. These are the West Lawn, the Main Drive, and the Greenhouse, all highly visible and potentially high visitorship areas within the property.

The specific recommendations laid forward in this treatment plan may now proceed as funding and staffing permit. It is expected that each project described above will be re-examined and carefully planned before its implementation to ensure the greatest level of historic accuracy possible. In some cases, additional research, particularly close examination of historic photographs, may be required to accurately replace the more detailed plantings of trees and shrubs.

This report and its proposed recommendations may be considered the end of a multi-year effort to carefully document and analyze the historic Lyndhurst landscape. However, from another perspective, they are the beginning of a new era of comprehensive landscape preservation action and stewardship. This report clarifies needs and clearly indicates that resources should be directed toward the Lyndhurst landscape. The phase I and II reports together form a firm basis for implementation of a range of landscape preservation initiatives, which will serve to renew and sustain the Lyndhurst landscape into the coming twenty-first century.
APPENDIX A:
ADDITIONAL RESEARCH IN HISTORIC CONTEXT
APPENDIX A: ADDITIONAL RESEARCH IN HISTORIC CONTEXT

INTRODUCTION

Since the completion of the first portion of the Lyndhurst Historic Landscape Report some additional research has been conducted to bring to light other aspects of the context for the development of the Lyndhurst landscape. This appendix summarizes that research. As cultural artifacts, designed landscapes are the products of the attitudes, aesthetics, and social values of their times, and so an understanding of their historic and cultural context is critical in determining their significance. Five aspects of context that appear to apply to the Lyndhurst landscape are explored in the following sections.

As a work of landscape architecture, the most important context for the Lyndhurst landscape lies within the realm of design. The Lyndhurst estate, originally called "Knoll," was initially developed by William Paulding, beginning with his purchase of 148 acres in 1836 and his commission of a Gothic Revival house by Andrew Jackson Davis. Davis designed a significant addition to the Mansion for George Merritt, the second owner, and provided advice on readings in landscape design. The influence of architect A.J. Davis is one area of context for the estate landscape.

The design of the property was also influenced by the tastes and interests of a succession of owners. As noted, Paulding provided the original overlay of architecture and estate development. George Merritt, succeeding Paulding, added a large addition to the house (again designed by Davis) and hired the German gardener Ferdinand Mangold to help him manipulate the landscape of the estate. Jay Gould, Helen Gould Shepard and Anna Gould, Duchess de Talleyrand Perigord were the next series of owners, from 1880 to 1961. Working with Ferdinand Mangold through his death in 1905, Jay and Helen both stewarded and altered the Merritt-Mangold landscape through the 1920s. The contributions of the succession of owners, as avid enthusiasts with considerable interests in landscape embellishment and horticulture, is another area worthy of consideration as context.

As the creation of a series of owners utilizing the services of master gardener, Ferdinand Mangold, from 1864 to 1905, the landscape must be also considered within the context of the work of Mangold and other master gardeners. There was a considerable immigration of traditionally trained European gardeners into the United States in the eighteenth, nineteenth and twentieth centuries. Mangold and his counterparts found positions on estates, working for wealthy landowners, or as designers and superintendents of public landscapes. Because Mangold is but one of many master gardeners, highly trained immigrants, who made notable contributions to the development of ornamental landscapes within the United States, this context is also an important design context for Lyndhurst.

Lyndhurst is also situated within the historic and social contexts of the Romantic period and the Hudson River Valley. Other, similar estates developed in parallel time periods within the region function as an additional context for Lyndhurst. Extending the examples used in the previous report, the Lyman Place, Montgomery Place, and Sunnyside are also included in this appendix. Parallel examples of these three estates, and the landscape design ideas of the period that influenced them, form the final area of context for the Lyndhurst landscape considered in this appendix.

Although these contextual areas cannot be entirely separated from each other, for clarity's sake they are considered separately in greater detail in the sections that follow.
A. CONTEXT: LYNDHURST ARCHITECT, ALEXANDER JACKSON DAVIS

The most significant of the designers, professional and amateur, who worked on Lyndhurst, is arguably Alexander Jackson Davis (1803-1892), whom Paulding commissioned to design the estate's Gothic Revival Mansion. Davis was one of the United States' foremost architects working in the Gothic Revival style in the nineteenth century. In addition to his designs for Blithewood, Lyndhurst, and Haral House, all Gothic Revival residences for specific clients, Davis was also known for his 1837 book, Rural Residences, an architectural pattern book.

Although Davis was known primarily as an architect, he also had an influence on American landscape design, through his collaboration with A.J. Downing, an important landscape gardener in the mid-nineteenth century. Between 1838 and 1848, Davis provided both designs and illustrations for Downing's publications on rural residences and landscape gardening, including Downing's serial The Horticulturalist as well as his books Treatise on the Theory and Practice of Landscape Gardening and Cottage Residences.¹ The two men became close friends, and Davis expanded his interest in and knowledge of landscape design as he worked with Downing. Together, they strove to depict a stylistic harmony between building and landscape. This is evidenced in Davis's designs used as examples in Downing's books, which demonstrate specific landscape settings for his Rustic Cottages, Gothic Revival Residences, and Italian-style Villas. For example, his illustration of Paulding's Knoll for Landscape Gardening included vines climbing the veranda, masses of shrubs, and tall shade trees.

Thus it is likely that although Davis served Lyndhurst primarily an architect, his work also had a major impact on the Lyndhurst grounds. With his knowledge of design, Davis would have been able to provide some advice, to both Paulding and Merritt on the creation of landscape surrounds for the estate. He also provided them with books and publications on the topic for their library. And, of course, the ideas of Picturesque landscape design were clearly carried out on the property. Davis's Gothic Revival mansion, with its crenelations, arched windows, turrets, towers, and pinnacled roofs, was sited and constructed to convey the roughness and variety found in a Picturesque landscape. Davis himself explained that the Gothic style was "suited to scenery of a picturesque character, and to an eminence commanding an extensive prospect."² While it is unclear whether the grounds inspired the house or the house inspired the grounds, this description is in keeping with the eventual appearance of the Lyndhurst landscape.

Furthermore, Davis's approach to the Mansion was one which united the house and site in its physical design as well as its stylistic design. The house was situated on "a wide terrace, with stone parapet [which] extends on three sides of the building, leading to a remarkably picturesque lawn of rock and clumps."³ On the west facade of the house, which faced the river, Davis also placed a veranda, with the result that the living area of the house expanded into the landscape. Clearly, the most important impact Davis had upon the landscape was this simple placement of the building to take advantage of the topography and the views of the Hudson River. This decision, which so obviously engendered the genius loci of the site, set the stage for the future development of the Lyndhurst landscape, including the construction of a Davis-designed addition to the Gothic Revival mansion in 1865.

B. CONTEXT: HORTICULTURAL INTERESTS & CONTRIBUTION OF THE OWNERS OF KNOLL, LYNDENHURST, LYNDHURST

In addition to Davis, the professional designer, the role of the owners, the amateur designers, cannot be underestimated in the creation and shaping of the Lyndhurst landscape. Lyndhurst was stewarded by a succession of devoted owners, each with their own interests and taste in landscape design, who left their mark on the landscape. Although their visions of Lyndhurst were sometimes implemented with the help of others,
such as A.J. Davis or Ferdinand Mangold, each of the owners left their own indelible mark upon the landscape.

The first owner, William Paulding (1770-1854), was a mayor of New York and an educated man who purchased a farm (148 acres) on both sides of Broadway in 1836. Paulding himself may have had some acquaintance with landscape design principles, through his acquaintance with Washington Irving, whose Picturesque cottage "Sunnyside" was built prior to Paulding's Knoll. By commissioning Andrew Jackson Davis to design his Gothic Revival country home, Paulding set the stage for future development of the landscape in the Picturesque style. By the end of the Paulding family tenure, the major landscape design effects included optimizing river views, blending the house into its near surround with plantings of trees and shrubs, developing enclosure of the property boundaries, and placing plantings in open fields to create visual interest.

The next owner, George Merritt, purchased 66 acres of the estate from William's son Philip Paulding in 1864, and continued the development of the estate landscape. During Merritt's relatively short, 9-year tenure, great improvements were made, attesting to his energetic vision for the landscape. Merritt constructed a new addition to the Mansion, again designed by Davis and also implemented the estate drives, secondary structures such as the Coach House and gardener's cottages, and pedestrian paths. But Merritt's vision for Lyndhurst was also fueled by horticultural influences, as evidenced by the implementation, under his oversight, of the productive landscape elements such as the orchards, vineyard, vegetable garden, and tree plantations along the drive, not to mention the construction of a massive greenhouse and conservatory. Here he grew camellias and other hothouse plants. South of the Greenhouse, flowering plants were displayed in elaborate beds, showing influences of the "Gardensque" style made popular in English landscape gardens by J.C. Loudon. Merritt's ideas and desires were implemented with the help and knowledge of gardener Ferdinand Mangold, whose own influence on the landscape is described below.

Following the death of Merritt in 1873, Jay Gould acquired Lyndhurst. Like Merritt, Gould was clearly interested in horticulture, filling the Greenhouse with more than 40,000 varieties of plants. When Merritt's original greenhouse burned in 1880, Gould had it replaced almost immediately. In addition to his love of his exotic hothouse plants, Gould was also interested in the larger estate landscape, planting new trees, and retaining Merritt's gardener, Ferdinand Mangold. When Gould died, his daughter Helen Gould Shepard acquired the estate. She, too retained Mangold, but also implemented her own ideas in the landscape, through the 1920s. These included the new Rose and Border Gardens and the addition of new structures such as the Bowling Alley.

From William Paulding to Helen Gould Shepard, each owner has had a distinct ideas about the Lyndhurst landscape and has manipulated it according to his or her own distinct tastes and the styles popular to their times. These varied ideas thus provide another area of context for the landscape.

C. CONTEXT: FERDINAND MANGOLD & IMMIGRANT MASTER GARDENERS

As much as Lyndhurst exists within the context of its defined regions, the northeast United States in general and the Hudson River Valley in particular, it also exists within the context of the work of the other master gardeners who worked on estate landscapes.

Following the sale of the property to George Merritt in 1864, the individual who likely had the most sustained impact on the development of the grounds was master gardener Ferdinand Mangold. Mangold worked on the property from 1864 to 1905, through the George Merritt, Jay Gould, and Helen Gould Shepard periods.
Although it is not possible to separate Mangold's design ideas from those of the owners, it is clear that Mangold was responsible for the implementation, refinement and alterations of the landscape design over time.

Mangold was born in Karlsruhe, Germany in 1828. At the age of 14 he began and apprenticeship at the Botanical Gardens at the Duchy of Baden, from whence he transferred to work on the grounds of the Castle of King Leopold, where he eventually became Superintendent of the Park. The gardens Mangold designed for the Duke of Baden were "laid out in a mixed style" and included beds of specimen plantings, statuary in profusion, and lawns "bordered and enamelled with flowers." In 1852, Mangold emigrated to the United States, where he was employed at the estates of General Mansfield Bradhurst in Carmansville, N.Y. and Louis B. Brown in Westchester County, NY. In 1864 George Merritt hired Mangold to work at Lyndhurst, where he remained at work until his death in 1905. During the Merritt years, Mangold supervised such improvements to the grounds as the construction of the curving, well-planted entrance drive, the addition of orchards, the construction of two stone gate houses, and the development of collections in the massive greenhouse. Following Merritt's death in 1873, Mangold began to work for the new tenant and eventual owner Jay Gould. During the Gould years, Mangold worked on rebuilding and restocking the greenhouses (which were destroyed by fire in 1880), maintaining vegetable gardens and annual display beds, pruning and clearing trees, planting new shrubs, and otherwise managing the extensive Lyndhurst grounds and gardens. After Helen Gould acquired the property in 1898, additional changes were made to the property, such as the addition of the new structures (the Bowling Alley, Rose Cottage, and Kennels), new drives and footpaths to access these structures, and new plantings of trees, shrubs, and vines. Throughout all these changes, the activity of Mangold was a constant, providing the Lyndhurst landscape with a continuity not typical of other private estates.

Although the work of Mangold, one man at one estate, may seem quite insignificant in the broad history of landscape design, Mangold is a significant figure in that he is representative of a group of individuals whose contributions to landscape architecture in the United States are still largely undocumented. These individuals were immigrants from Germany and other northern European countries who came to the United States to work on both public and private landscapes.

Although the members of the group who worked on public landscapes--among them Theodor Wirth (Switzerland) who worked on Hartford, Connecticut and Minneapolis, Minnesota park systems and Jens Jensen (Denmark), famous for his work on public parks in Chicago--are fairly well-known, those who worked on private estates are largely unheralded. This may be because, spending long tenures at single, private residences, these gardeners and horticulturalists did not gain widespread, public reputations. Similarly, their work, if published, was not published in national journals, but rather in local or regional publications with a more limited audience. However, a few recent researchers are elucidating the considerable influence these gardeners wielded on the development of landscapes and gardens in the United States. The results of their research allow us to compare Mangold with other German-American and North European gardeners of his time, providing another context under which the landscape of Lyndhurst can be considered.

It appears that like Mangold, German-American gardeners often received their training at estates owned by Germany's royalty and upperclasses, where they were dedicated members of the household. According to Kurt Culbertson, "many German-American landscape architects were schooled in the royal palace gardens and pleasure parks of the fatherland. In some circumstances, they were second, third or fourth generation hofgarterners (house gardeners) for a particular property." Others worked for botanical gardens or forestry institutes. After immigrating to the United States, German-American gardeners followed a wide variety of career paths: They found careers as landscape architects working on various commissions, as nurserymen providing plants and sometimes design to a region, and as designers and superintendents for a single property or land owner.
Notable among those immigrants working as landscape architects and designers of private properties and public parks were Ignatz Anton Pilat of Austria, Jacob Weidemann and Theodore Wirth of Switzerland, Jens Jensen of Denmark, and Rudolf Ulrich of Germany and Adolf Strauch of Prussia, among others, of northern European origin. Each had a career distinguished by several positions and important design commissions. In the area of nurserymen, George Ellwanger, of Rochester's Ellwanger and Barry nursery, is one of the most prominent nursery figures of German-American descent with a long, distinguished career in plant propagation and distribution. Frederick Pursch, [born 1774, Tobolsk, Siberia], is a good example of a German-American working as a designer or superintendent. One of many landscape gardeners of Germantown, Pennsylvania, Pursch "managed the gardens of William Hamilton called the Woodlands" in Philadelphia. His skills eventually led him in 1807 to manage Manhattan's Elgin Botanical Gardens, a horticultural education resource founded by Dr. David Hosack who developed the estate landscape at Hyde Park from 1830-32 with Andre Parmentier, himself a Belgian-born nurseryman and landscape gardener.

Good examples of gardeners who worked at one estate are found in Hans Jacob Ehlers and his son Louis Augustus Ehlers. The careers of the Ehlers, who provided services to several Hudson River estates, are quite comparable to that of Mangold. Hans Jacob Ehlers was born in 1804 in the Duchy of Schleswig, in Germany. In 1830 he graduated from the Forestry Institute of Kiel, in the Duchy of Holstein, and was made head of the Forestry Arboretum associated with the Institute. In 1833 he was also appointed to the Forestry Board in Kiel, but when, in 1841, both positions were eliminated, he emigrated to the United States. The elder Ehlers settled down in the Hudson River Valley, where he worked as a landscape gardener. Among the projects attributed to him are a plan for the landscape of "Rokeby, William B. Astor's estate in Barrytown, NY; plans for Franklin H. Delano's estate "Steen Valetje," also in Barrytown.

Although the elder Ehlers was born some 20 years before Mangold, the two men's lives contain some interesting parallels. For example, Ehler's early education in Germany, at a forestry school, is similar to Mangold's early career. Such training in forestry institutes and arboretums seems to be common among this group of German immigrants, and may have afforded these men a professional advantage in the United States, where forestry schools and arboretums were not yet common. Both Ehlers and Mangold chose to work in the Hudson Valley, probably because of the number of opportunities for estate gardeners. However, Ehlers, who generated plans for estate improvements, rather than taking up permanent residency at an estate, seems to perhaps have played a more consultative role than did Mangold.

Louis Augustus Ehlers, Hans Jacob Ehlers' son, was born in 1835 and was more directly Mangold's contemporary, at least chronologically. Having emigrated from Denmark with his father in 1842, the younger Ehlers also went on to become a landscape gardener, though his formal training in this field is unknown. The development of "Ferncliff," an estate of William Astor is credited to the younger Ehlers, as is work on other estates on which his father also worked. Ehlers, like his father and unlike Mangold, apparently never took up long-term residency at his clients' estates. Like Mangold, however, the younger Ehler's sphere of influence appears to have been quite narrow, since no projects designed by Louis Ehlers outside of Dutchess County, NY have been documented.

As noted previously, German-American landscape gardeners sometimes brought a tradition of lifelong service to a particular property as hofgarteners, or house gardeners. These professionals, serving primarily one property or owner, are readily comparable to Ferdinand Mangold and his career at Lyndhurst. An early example is George Huessler, [1751-1817] born in Landau, Alsace. After immigrating to Massachusetts he spent his career from 1790 on in the service of millionaire Elias Hasket Derby and worked on both the Derby estate and farm. An early twentieth century example is horticulturist William Hertrich, head gardener for the Huntington estate (now the Huntington Botanical Gardens, in San Marino, California), where he worked for decades with the
owner in garden development. The fact that these individuals worked primarily on one property should not be seen as a limitation of their influence on the profession.

German Americans also influenced landscape design through publications and correspondence. It should be noted that a continuous dialogue existed between American and German landscape architects and gardeners during the late nineteenth century. The magazine *Garden and Forest* frequently contained reviews of German landscape books, notes on German gardens, and travel reports of Germans in America and Americans in Germany. German publications reciprocated this interest; the magazine *Gartenkunst*, for example, published many works written by Jens Jensen on his designs in the early twentieth century. Contacts were also maintained through correspondence and continuing immigration. At Lyndhurst, for example, some evidence indicates that during the Mangold superintendency several additional German landscape gardeners were added to the Lyndhurst grounds staff. These new arrivals, likely trained in Germany and familiar with current German practices and estates, would bring their experience to the landscape of the United States.

Although the influence of German and German-American gardeners on the development of American landscape architecture has not been fully elucidated, it is clear that future research will continue to document their contributions to landscape design as significant. One researcher already attests to finding more than 100 notable German-American gardeners from the late nineteenth and early twentieth centuries in areas ranging from California to Missouri to New York. The career of Ferdinand Mangold at Lyndhurst stands out as a well-documented example of work representative of that done by other German-Americans.

D. CONTEXT: CONTEMPORANEOUS REGIONAL ESTATE LANDSCAPES

The Lyndhurst landscape is in some respects a unique work of landscape art—an idiosyncratic creation of a succession of owners and a gardener who were aware of and influenced by design ideas and stylistic innovations from both Europe and the United States. At the same time, however, Lyndhurst can be considered within the regional context of other estates created in the northeast United States in the 1800s.

When the ideas of English landscape gardening crossed the Atlantic Ocean in the early 1800s, they took particularly strong hold in the northeast United States. The south, with its strong regional tradition of large plantations, and the west, still under exploration, were less immediately influenced. According to historian Norman Newton, in his book *Design on the Land*, the reasons for the strong impact of "modern" landscape styles on the northeast were twofold. First, as the "newly rich merchants and manufacturers in the booming northern cities" searched for ways to spend their fortunes, they began acquiring land and improving it according to the latest styles. Second, however, and more importantly, was the reason that northern estates, unlike the traditional plantations in the south, were less defined by agricultural production than by residential living: "A[n]... underlying factor was the lack of any real need in the north for extensive [farm] layouts—compared to those of the southern plantations—and the early tendency to leave handsome sites alone as unimpeded natural scenery. Thus, when the time came for instituting 'improvement' the background was well adapted to landscape gardening treatment... [W]hat emerged eventually was a clear dominance of the landscape garden and its pastoral character in the north."

Examples of estate landscapes of a time frame similar to that of Lyndhurst are explored in the following sections to extend the regional context for Lyndhurst. The Lyman Place in Waltham, Massachusetts, is the only one outside of the Hudson River Valley, but it was developed in a parallel time. Sunnyside, with information drawn from a report prepared by Robert M. Toole, is notable as a near neighbor of Lyndhurst. Montgomery Place, another Hudson River estate, has a Davis-designed house, was developed during a
comparable period and remained in a single family through successive generations of stewardship and change. In each of these three cases, the property is described and some comparisons to Lyndhurst are made.

1. The Lyman Place
One of the earliest northeastern estates designed according to English landscape gardening principles was the Theodore Lyman estate, located outside of Boston in the town of Waltham, Massachusetts. The "Lyman Place," or "Waltham House" as it was later known, was originally owned by John Livermore, who built the farm on a highland near Chester Brook, which ran to the Charles River. Around 1769 the farm was sold to Jonas Dix, who became a Waltham town schoolmaster and selectman, and who lived on the farm until his death in 1796. At this time, Theodore Lyman, a merchant of Boston, bought the property, "with the express intention of making it a country-seat." At a cost of $8,000 Lyman built a large mansion, situated in the landscape according to English landscape gardening principles:

This substantial house he placed not upon the highland... but upon the flat, and from one to two hundred feet south of the southernmost rocks. Here it was sufficiently high above the brook, which flowed in front about 400 feet away, while behind it space was obtained for a well-sheltered garden. The east wing was built close to a little knoll, which with the trees upon it, helped to make the house appear firmly and comfortably planted. The west wing also had its supporting trees. The smooth lawn before the house was made with material dug from beside the brook, which was then induced, by the help of a low dam, to flow more quietly and broadly. Plainly, English books on landscape-gardening, like Repton's or Whatley's had made part of this American gentleman's reading--the low setting of the house and the serpentine curves given to the grass-edged shore of the stream furnish proof of this.

This lawn and widened brook clearly show the influence of the Beautiful landscape style on the design of the property. The Lyman family, however, made other alterations to their farm to create an estate. Although the original farm buildings were maintained, a new stable and access road to the mansion were added to the estate. A range of glass houses were also built around the 1830s to house an extensive camellia collection. Other plants were also showcased on the estate, including a large white oak--"an aboriginal inhabitant of the Chester Brook Valley"--an "ancient" hedge of Box, an English Elm and a Purple Beech located in the garden behind the mansion. The interest in plants and their locations in prominent positions on the property indicate, perhaps, the influence of the Gardenesque on the design of the estate.

Although the construction of the Lyman Place in 1789 predated the publication of Downing's Treatise, Downing himself considered this country seat an important one in the tradition of "modern" style of landscape gardening, using the estate as an early example of the style in his book:

Waltham House, about nine miles from Boston was, 25 years ago, one of the oldest and finest places, as regards Landscape Gardening. Its owner, the late Hon. T. Lyman was a highly-accomplished man, and the grounds at Waltham House bear witness to a refined and elegant taste in rural improvement. A fine level park, a mile in length, enriched with groups of English limes, elms, and oaks, and rich masses of native wood, watered by a fine stream and stocked with deer, were the leading features of the place at that time; and this and Woodlands [another estate, in Pennsylvania] were the two best specimens of the modern style. ...in the earliest period of the history of Landscape Gardening among us.

With this in mind, some comparisons between Lyndhurst and the Lyman Place may be instructive, in seeing how Lyndhurst both conformed to, and differed from, one of the earliest examples of an estate designed in the "modern" style of landscape gardening. Both estates were, for example, located on sites which were originally farms, but which had notable natural features. In the case of the Lyman estate, the site was a highland with its impressive native forests; in the case of Lyndhurst, it was the rough bluff of the Hudson
Sunnyside's strong Picturesque characteristics make it an interesting comparison to Lyndhurst during this period. It is likely that the Pauldings, building their Gothic Revival mansion a few years after Irving completed his Dutch Colonial cottage, may have been influenced by their southern neighbor to develop their property in a similar manner. However it appears that the nature of the "Knoll" property as it was then known, high above the river, and quite open, may not have been as conducive to the rough and intricate aspects of Picturesque design as was Sunnyside. In addition, it may be that Irving was simply more knowledgeable and better versed in landscape effects, allowing him to more effectively pursue his landscape vision. In addition, it is clear that George Merritt, helped by Ferdinand Mangold, implemented their own ideas for the landscape, ideas which, occurring a decade after Irving's death, were quite different than Irving's, incubated in the early part of the century.

3. Montgomery Place

Montgomery Place provides another comparison for Lyndhurst. Like Lyndhurst, it is sited on the bluff overlooking the Hudson River, but it is located considerably north of Lyndhurst, near the town of Annandale. Work on Montgomery Place, a 242-acre estate, was begun in 1804 by Janet Livingston Montgomery, widow of the Revolutionary General Richard Montgomery. After building a large, Federal style Mansion, Janet Livingston, an avid gardener, operated a commercial nursery on the estate until she died in 1828. The estate then became the property of her brother, Edward Livingston, who unfortunately died before being able to improve the house and grounds during his retirement. Therefore, it was Edward's widow Louise who implemented a major campaign of change and improvement to the estate, beginning with her hiring of Alexander Jackson Davis in 1842. Davis, who had recently completed the Gothic-revival mansion at Lyndhurst, transformed the Federal style mansion of Montgomery Place into a neoclassical villa "in the Palmyran style." Between the years 1843-1867, Davis continued to work with Louise and, after her death, her daughter Coralie, making alterations to the house and adding outbuildings to the grounds, which included a coach house, farm cottage, a romantic "Swiss Cottage."

Parallels between the design Montgomery Place and Lyndhurst go beyond the work of the same architect, however. Like Lyndhurst, Montgomery Place was quite large, with an active agricultural component, and the estate grounds contained a variety of landscape features in the Picturesque, Gardenesque, and Beautiful styles: among them were formal gardens, an arboretum, a conservatory, walks and drives, waterfalls, and a lake. In 1841 Downing wrote that Montgomery Place was "as a whole, nowhere surpassed in America, in point of location, natural beauty, or the landscape gardening charms which it exhibits."20

Although the landscape contained elements of the Beautiful and the Gardenesque, the Picturesque style dominated the design of the landscape, as can be seen in Downing's description of Montgomery Place:

Among the fine features of this estate are the wilderness, a richly wooded and highly picturesque valley, filled with the richest growth of trees, and threaded with dark, intricate, and mazy walks, along which are placed a variety of rustic seats. This valley is musical with the sound of waterfalls, of which there are several fine ones in the bold impetuous stream which finds its course through the lower part of the wilderness. Near the further end of the valley is a beautiful lake, half of which lies cool and dark under the shadow of tall trees, while the other half gleams in the open sunlight. In a part of the lawn, near the house, yet so surrounded by a dark setting of trees and shrubs as to form a rich picture by itself, is one of the most perfect flower gardens in the country, laid out in the arabesque manner, and glowing with masses of the gayest colors—each bed being composed wholly of a single hue. A large conservatory, an exotic garden, an arboretum, etc., are among the features of interest in this admirable residence. Including a drive through a fine bit of natural wood, south of the mansion, there are five miles of highly varied and picturesque private roads and walks through the pleasure grounds of Montgomery Place.21
Interestingly, in contrast with Lyndhurst, water features such as a lake and the waterfalls played an important role in the Picturesque landscape of Montgomery Place.

When Coralie Livingston Barton died in 1873, the estate was held in joint tenancy for a number of decades, and little change occurred on the property until the 1920s, when John Ross Delafield and Violetta White Delafield inherited it. The Delafields made a number of changes to the property, yet they, like Helen Gould at Lyndhurst, recognized the unique blend of natural and designed features on the site, and implemented their new, twentieth century layer of gardens with the intent of preserving what already existed. For example, existing trees were inventoried, pruned, and replaced in kind when necessary, and the nineteenth-century carriage roads, fallen into disrepair, were revived to access to the estate's forests. Violetta Delafield also added a terrace and pond below the river facade of the mansion as well as a series of gardens, including a ravine garden, lily pond, and rose and herb gardens. These gardens were screened from the surrounding landscape by spruce and hemlock hedges.22

In 1964, the Delafield's son John inherited Montgomery Place, who, with his wife Anita, lived there until the 1980s, when the estate became the property of Historic Hudson Valley. This continuity of family ownership well into the twentieth century parallels the family stewardship of Lyndhurst, which was owned by successive members of the Gould family until the 1960s, when it too was transferred to a preservation organization and was opened to the public.

Each of these three estate landscapes, which together span more than a century of the history of estate development in the United States, provide parallels to the development of the Lyndhurst landscape. Considered as a group, the Lyman Estate, Sunnyside, Montgomery Place, the estates explored in the Phase I report, and Lyndhurst reveal that a distinct type of estate evolved in the northeastern part of the United States, one which combined the aesthetics of the time with regional physiographic characteristics. The Hudson River Estates in particular are truly a part of their region, shaped by owners, master gardeners, and architects to take advantage of the Hudson River scenery and topography. While Lyndhurst is unique in the tastes of its individual owners and the skill and training of its master gardener, it exhibits many similarities to other estates of the region developed around the same period. Considered within a context of the time and the place, the mid-nineteenth century and the Hudson River Valley and compared to these five examples, Lyndhurst resides in its context as a surviving example of the period and a significant member of a regional group.

E. CONTEXT: MODERN OR NATURAL LANDSCAPE GARDENING IN THE UNITED STATES

The development of the "modern" or natural style of landscape gardening began in eighteenth-century England in reaction to the emphasis on geometric gardens—what contemporaries as well as later writers such as Andrew Jackson Downing termed the "ancient" or "formal", i.e., Anglo, Dutch and French Renaissance gardens. Application of the modern style in the United States derived from English practice. Downing's Treatise on the Theory and Practice of Landscape Gardening, Adapted to North America (1841), for example, acknowledged the English origins of the natural style of landscape design and his indebtedness to such notable British writers and practitioners as Lancelot "Capability" Brown, Humphry Repton, Richard Payne Knight, Uvedale Price, and John Claudius Loudon.23 In large part because he introduced generations of readers to what he termed the "beauties and principles of the art,"24 Downing became the preeminent arbiter of taste in nineteenth century America. As was true of his English mentors, Downing divided landscape design into two broad categories, the Beautiful (or the Graceful) and the Picturesque. Downing described the Beautiful by evoking images of "some gently undulating plain, covered with emerald turf, partially or entirely encompassed by rich, rolling outlines of forest canopy." It was, he asserted, a landscape defined by "simple, easy, and
flowing lines. To capture the flavor of the Picturesque, Downing suggested that readers "take a stroll to the nearest woody glen in your neighborhood"--to a place with rocky outcrops, and perhaps, "some old, half decayed tree near by," a murmuring brook, and other features--to a landscape, in short, characterized by roughness, irregularity, and sudden variation.

Historians of the nineteenth-century American landscape generally follow the broad categorization Downing codified for his readers. Too often, however, they treat the Beautiful and the Picturesque as if they were mutually exclusive categories. Downing considered the Beautiful and the Picturesque "two variations" of the modern style and added that they were "variations no less certainly distinct, on the one hand, than they are capable of intermingling and combining, on the other." However, he also stated that "directing our efforts towards the production of a leading character or expression" was preferred. In fact, the grounds of Downing's own residence and nursery, in Newburgh, New York, incorporated elements of both styles. A sweeping lawn interspersed with broad headed, deciduous trees stood in front of the house as an expression of the Beautiful, while more Picturesque elements of the landscape were nearby, including a rustic arbor, a hermitage, evergreens and other plantings of that character. Separate areas were given a "leading expression" of one or the other style.

Downing's residential landscape also incorporated elements of a more recent style introduced by J.C. Loudon, the Gardenesque. The Gardenesque style sought to display the new plant materials made available as a result of explorations and of the horticultural revolution of the early nineteenth century. Circular and arabesque beds of flowering plants, tropical plants such as palms (placed in pots for outdoor display) and rarer hardy shrubs or trees plants embellished his grounds as well.

It is worth emphasizing that Downing employed each of these styles--Beautiful, Picturesque, and Gardenesque--in an area of less than eleven acres. The ornamented grounds of the Lyndhurst estate, 67 acres, afforded ample opportunities for employing all three styles as well. In the Lyndhurst residential history these three styles have played an important role in the shaping of the landscape. During the Pauleing era, for example, the siting of the Mansion, the western views, and the planting of the landscape between the Mansion and the Hudson River conformed to the tenets of the Picturesque as Downing described them, while the lands to the east, kept in meadow with occasional shade trees and rolling topography evoked the Beautiful. The Merritt-Mangold reshaping of the area east of the Mansion into two broad, mown lawns, with park-like trees planted singly or in groups expressed the Beautiful in landscape design, while rarer plants and formal, geometric plantings, particularly of bedding plants, parterres, and tropical plants interspersed in lawn areas adjacent to the Greenhouse complex, added elements of the Gardenesque. These new plantings were so pervasive as to give a dominantly Gardenesque theme to the Merritt-Mangold landscape design, while elements of the Picturesque and the Beautiful remained. The final owner to significantly alter the landscape, Helen Gould Shepard, added plantings in twentieth-century styles, including foundation plantings, flowering shrubs, and border gardens and a rose garden, yet retained elements of Picturesque design to the west, Gardenesque plantings along the drive and the Beautiful open lawn and park-like trees to the east. Thus over its history the Lyndhurst landscape has incorporated--and continues to exemplify--several distinct "variations" of what Downing termed the "modern" or natural style of landscape gardening.
APPENDIX A: ENDNOTES


2. A.J. Davis, Rural Residences (New York), np.


18. Ibid., p.47.


26. Downing, p.49.

27. Ibid, p. 48.