

NATIONAL ASSOCIATION FOR OLNSTED PARKS  
*WORKBOOK* Series, Volume 1  
BIOGRAPHY



Revere Beach, Revere, Massachusetts, ca. 1897

**Charles Eliot**  
1859–1897

**HELD IN TRUST:**  
Charles Eliot's Vision for the  
New England Landscape

*by Keith N. Morgan*

#### ABOUT THE AUTHOR

Keith N. Morgan is chair of the Department of Art History at Boston University and has written numerous articles on landscape history.

### *NAOP WORKBOOK*

This publication has been made possible by the generous support of the Andy Warhol Foundation for the Visual Arts, Inc.

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## HELD IN TRUST:

### Charles Eliot's Vision for the New England Landscape

by Keith N. Morgan

The contributions of Charles Eliot (1859-1897) to the American professions of landscape architecture and regional planning were applauded by his contemporaries and have been passingly acknowledged by the current generation of environmental historians.<sup>1</sup> His reputation rests on two key accomplishments. First, Charles Eliot (*Fig. 1*) played the seminal role in the establishment of Massachusetts' Trustees of Public Reservations in 1891 which became a model for subsequent conservation and historic preservation organizations here and abroad.<sup>2</sup> Second, Eliot led the conceptualization and implementation of the Boston Metropolitan Park System from 1892 on, one of the most significant early developments in the history of regional planning in the United States.<sup>3</sup> Even Eliot's mentor, Frederick Law Olmsted, Sr., writing to his two sons and Eliot in 1893 stated:

...nothing else compares in importance to us with the Boston work, meaning the Metropolitan quite equally with the city work. The two together will be the most important work of our profession now in hand anywhere in the world...In your probable life-time, Muddy River, Blue Hills, the Fells, Waverley Oaks, Charles River, the Beaches *will be points to date from* in the history of American Landscape Architecture, as much as Central Park. They will be the opening of new chapters in the art.<sup>4</sup>

Of the list of landmark projects for the new generation, only Muddy River was not a commission that Eliot instigated and controlled.

To appreciate fully the significance, context, and novelty of Eliot's accomplishments, we must compare and contrast the ideals and achievements of Eliot with those of F. L. Olmsted, Sr. We need to explore Eliot's personal experience and education and the Boston/Cambridge social, political, economic and cultural environment from which he emerged and in which he functioned so successfully.

The differences between Olmsted and Eliot can be seen in both the language that they used to describe their work and the goals that they held for public landscapes. Olmsted talked about green country parks, parkways and pastoral retreats in which the modern city dweller could restore his spirit through the passive contemplation of nature.<sup>5</sup> Eliot discussed reservations, trusteeships and rural landscape preservation that would provide the appropriate setting for active communing with nature. In his major urban parks, Olmsted sought to create a visual and physical ideal through the radical and artificial reshaping of the character of the site (*Figs. 2 & 3*); he held an abstract, intellectual concept of what each park should look like.<sup>6</sup> Eliot, however, worked by a process of elimination and by management of resources chosen for their inherent landscape quality (*Figs. 4 & 5*). The Olmsted park is a landscape of creation and development; the Eliot landscape is one of choice and improvement. Such broad characterizations of the work of these two men must



Fig. 1. Photograph of Charles Eliot, ca. 1895.

Courtesy of Mr. Alexander Goriatsky





Fig. 2. Frederick Law Olmsted, Sr., Muddy River Improvement, Boston and Brookline, Massachusetts, construction photograph in Longwood section, ca. 1892.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts



Fig. 3. Frederick Law Olmsted, Sr., Muddy River Improvement, Boston and Brookline, Massachusetts, photograph of Longwood section, ca. 1902.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts

be modified in reference to certain activities—for example, Olmsted's pivotal role in landscape preservation at Yosemite and Niagara Falls, or Eliot's naturalized reclamation of the industrialized banks of the Charles River. Nevertheless, the distinctions remain valid and instructive.

The process of investigating Eliot's background begins with the environment from which he emerged. Born in Cambridge, Massachusetts on November 1, 1859, Eliot was the first of two sons born to Charles W. Eliot, then an assistant professor of mathematics and chemistry at Harvard College, and to Ellen Derby Peabody Eliot.<sup>7</sup> On both sides of the family Eliot's ancestors had included political, social and financial leaders of the Commonwealth since the seventeenth century. Eliot was born with the benefit of privilege and the burden of responsibility clearly imprinted on his life. The most important early events of his childhood, both of which occurred in 1869, were the death of his mother, which contributed to the shyness and self-doubt that he worked hard to overcome throughout his life, and the election of his father as the president of Harvard University. His father's four decade presidency represents the acknowledged emergence of modern higher education at Harvard and for the nation at large.<sup>8</sup> President Eliot organized his faculty into a series of departments, schools and colleges and instituted a liberal curriculum in which the student assumed the major responsibility for the direction of his studies through elective courses. Young Charles entered Harvard in 1879 as many of these changes were being implemented. The same dynamism and breadth of vision that President Eliot showed in his analysis and transformation of Harvard College would be seen later in his son's study and organization of landscape and recreational needs for the entire Boston metropolitan region. While the intellectual community of Harvard College and Cambridge during Charles' undergraduate years was certainly influential, it was the student's activities beyond the university that were more revealing of his future interests. Most significant during these years were the summers the Eliot family spent in Maine at their house near Bar Harbor, sailing along the jagged coast line, and investigating the natural environment of the region. During the summers of his final two years at Harvard, Charles Eliot organized and lead a small band of classmates for camping and scientific exploration on Mt. Desert in Maine. Named the Champlain Society, this group of friends, and especially Charles, enjoyed the vigorous life in the woods or on the family boat, just as the tramps through the Connecticut countryside had been so formative in young Olmsted's adolescence in the second quarter of the nineteenth century. One need only remember that Charles and Theodore Roosevelt, Jr., who shared an enthusiasm for rugged outdoor life, were contemporaries and spent two years at Harvard together.<sup>9</sup> President Eliot reinforced the belief in physical activity and knowledge of the wilderness, emphasizing this experience as a way of counteracting his older son's melancholic withdrawal.

The education of Charles Eliot, however, really began after Harvard. The summers in Maine and his frequent hiking excursions out from Boston in all directions convinced Charles to enter the field of landscape architecture. Since no academic curriculum in landscape design would be established in the United States until after his death, Charles invented his own course of graduate studies. He took advantage of the various offerings at Harvard, especially the Bussey Institute, where he pursued botany and horticulture for most of one year. Through the family network that would remain an essential professional asset, Charles was introduced to Frederick Law Olmsted, Sr., by his uncle, the architect Robert Swain Peabody. In April, 1883, Eliot entered the Olmsted office as an apprentice. His mentor had recently established a home and studio at 99 Warren Street in Brookline, Massachusetts. There Charles spent two useful years. He benefitted from direct observation of Olmsted's ideas and working method, and rapidly became involved with major office projects, including the Arnold Arboretum, Franklin Park and Marine Park, all key elements in the



Boston municipal park system.<sup>10</sup> The office included John Charles Olmsted, already a partner and office manager, and eventually Henry Sargent Codman, an Eliot contemporary who benefitted from a comparable network of family connections, the most important being his uncle, Charles Sprague Sargent, Director of the Arnold Arboretum.<sup>11</sup>

The son of the leading educational theorist of the period, Charles Eliot with his father's help, then developed a plan for his self-education as a landscape architect. After two years with Olmsted, Eliot returned to the Bussey Institute to complete his brief course of study and then embarked upon a year-and-a-half tour of the Eastern Seaboard of the United States and of Europe, which lasted from the fall of 1885 to the end of 1886.

During the year in Europe, he read the available landscape literature in English, French and German, met many of the leading landscape designers of the period, and visited private gardens, public parks and natural areas from England to Italy to Russia. He achieved a first-hand knowledge of working practices, plant materials, and design philosophy that was unequalled by any American at that time. While abroad, he wrote to his family and to Olmsted describing the people he met and places he visited, which led Olmsted to realize Eliot's exceptional gifts as a landscape critic. Olmsted wrote enthusiastically to his former apprentice: "You ought to make it part of your scheme to write for the public, a little at a time, if you please, but methodically, systematically. It is a part of your professional duty to do so."<sup>12</sup> Olmsted also attempted to lure Eliot back from Europe to rejoin the office and assist in the designs for Stanford University. With gratitude but determination, Eliot chose to complete his personal curriculum of European study and to open his own office after his return.<sup>13</sup> While abroad, Eliot was most taken with the English work, quite logically for a student of Olmsted, but he also admired what he saw in Germany, especially the large landscape park of Prince Hermann Ludwig von Pückler at Muskau. Eliot was impressed by Pückler's desire to improve all elements of the environment, from the pleasure grounds surrounding the schloss to the agricultural districts, and even to the industrial zones of the estate. Prince Pückler's writings and the estate at Muskau, which Eliot visited, are clearly the intellectual model for the comprehensive schemes Eliot envisioned for the Boston Basin and New England at large.<sup>14</sup>

Upon his return in late 1886, Eliot set himself up in offices in the Amory Ticknor house at 9 Park Street, which had been the residence of his mother's ancestors. During the next two years, he undertook a series of projects that demonstrate, on a limited scale, the problems he would address in Boston. Representative of these early commissions are his plans for White Park, a gift to the Town of Concord, New Hampshire, and the Longfellow Park and Memorial Garden in Cambridge, Massachusetts. Both designs project the Eliot landscape philosophy and the importance of the cultural and historical environment to which they relate. In an article that he wrote for *Garden and Forest* in 1890, he described the White Park (Fig. 6) and its importance:

Every city of the new West may have its carpet bed "park" if it so wishes, but Concord proposes to seize her opportunity to provide for her citizens and their posterity something very much more valuable. She will set aside and preserve, for the enjoyment of all orderly townspeople, a typical, strikingly beautiful and very easily accessible bit of New England landscape. Would that every American city and town might thus save for its citizens some characteristic portion of its neighboring country. We should then possess public spaces which would exhibit something more refreshing than a monotony of clipped grass and scattered flower beds.<sup>15</sup>

Eliot's opposition to the popular practice of carpet-bedding with annuals in urban parks is insignificant here in comparison with his concern for the preser-



Fig. 4. Charles Eliot, Tree-clogged notch, Middlesex Fells, Malden and Melrose, Massachusetts, drawing by Arthur A. Shurcliff, 1897.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts



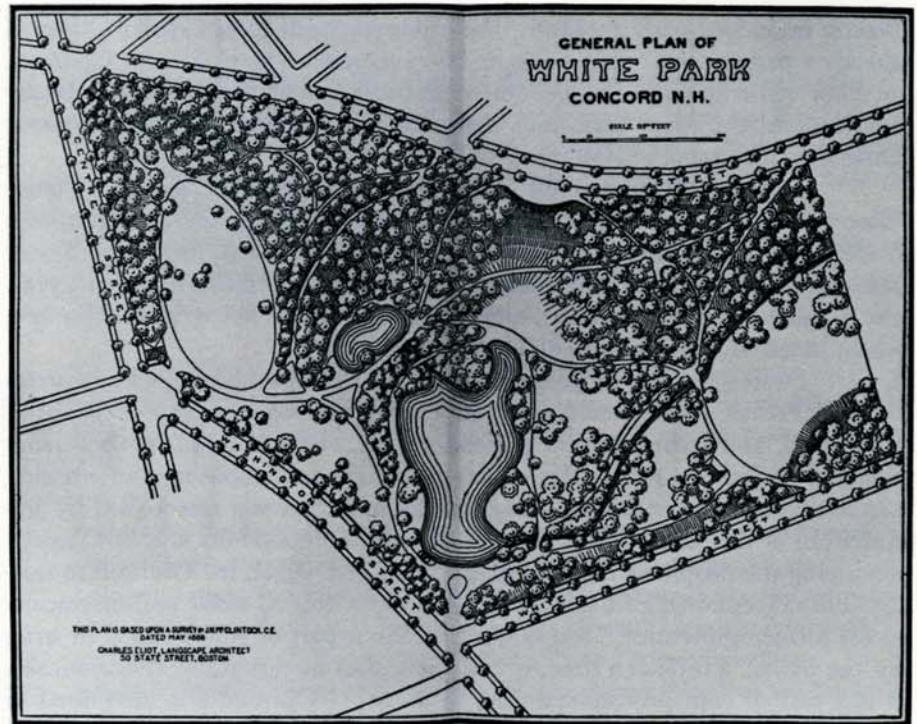
Fig. 5. Charles Eliot, Opening of view in notch of Middlesex Fells, Malden and Melrose, Massachusetts, drawing by Arthur A. Shurcliff, 1897.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts



Fig. 6. Charles Eliot, Plan of White Park, Concord, New Hampshire, 1890.

[Charles W. Eliot], *Charles Eliot, Landscape Architect*. Boston and New York: Houghton, Mifflin and Company, The Riverside Press, Cambridge, 1902.



vation of a "strikingly beautiful...bit of New England landscape."

Smaller in scale but richer in associations was the scheme that Eliot devised in June 1887, as a park memorial (*Fig. 7*) to Henry Wadsworth Longfellow, stretching from the Longfellow house on Brattle Street in Cambridge to the Charles River. Through a series of distinct landscape units, Eliot maintained a visual and historical link between the John Vassall house, (the Georgian mansion where Longfellow had lived), the Charles River, and, ultimately, to the Longfellow marshes across the River—all part of the historical definition of the property. Across Brattle Street from the house, Eliot laid out a greensward like a narrow Common, which connected to a lower and more naturalized area on the level of the flood plain of the River, now the site of a monument sculpted by Daniel Chester French. Eliot, of course, would have known "Old Poems," as the Harvard undergraduates called Longfellow, and conceived a design redolent with the Colonial Revival spirit that Longfellow's poetry had helped to inspire. While his family's connections helped to launch Charles Eliot's career in a more rapid and successful manner than others might have enjoyed, those same personal associations endowed these designs with a distinct sense of the local landscape and New England culture.

During these early years, Eliot also began to explain his ideas and to admonish the excesses of his contemporaries in lucid articles for *Garden and Forest*, and other popular and professional periodicals. With titles like, "The Suburbs in March," or "Beautiful Villages," these essays sought to interpret goals and techniques of the landscape architect to a wide audience.<sup>16</sup> Most interesting among these articles is a series of descriptions of major American country houses from the eighteenth through the mid-nineteenth century, three in the Boston area and three along the Hudson River, which must represent one of the earliest American efforts at writing landscape history. Representative of these essays is one on The Vale (*Fig. 8*), the Lyman Family estate in Waltham, Massachusetts. Eliot, who was also a descendant of the Lymans, carefully analyzes the evolution of the houses, its gardens and agricultural districts. It is in his introduction to the initial article in the series, however, that he states his true purpose in undertaking these essays:

The rising tide of population has swallowed up the handsome estab-

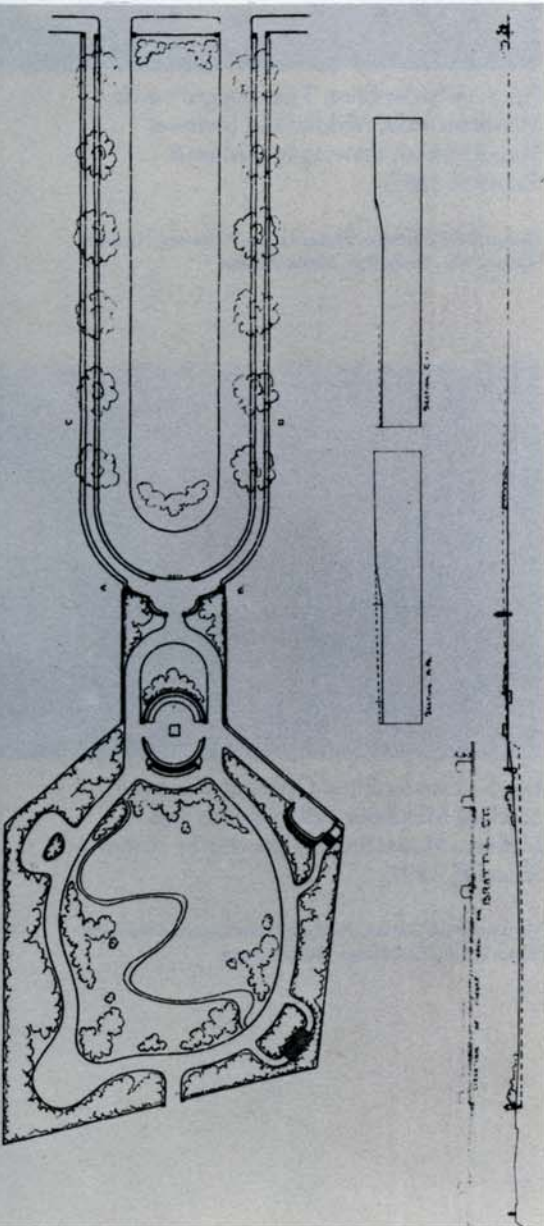


Fig. 7. Charles Eliot, Preliminary Study of Grounds of Longfellow Memorial Association, Cambridge, Massachusetts, 1887.

Eleanor M. McPeck, Keith N. Morgan and Cynthia Zaitzevsky, eds., *Olmsted in Massachusetts: The Public Legacy. A Pilot Project for a National Inventory*. Brookline: Massachusetts Association for Olmsted Parks, 1983.



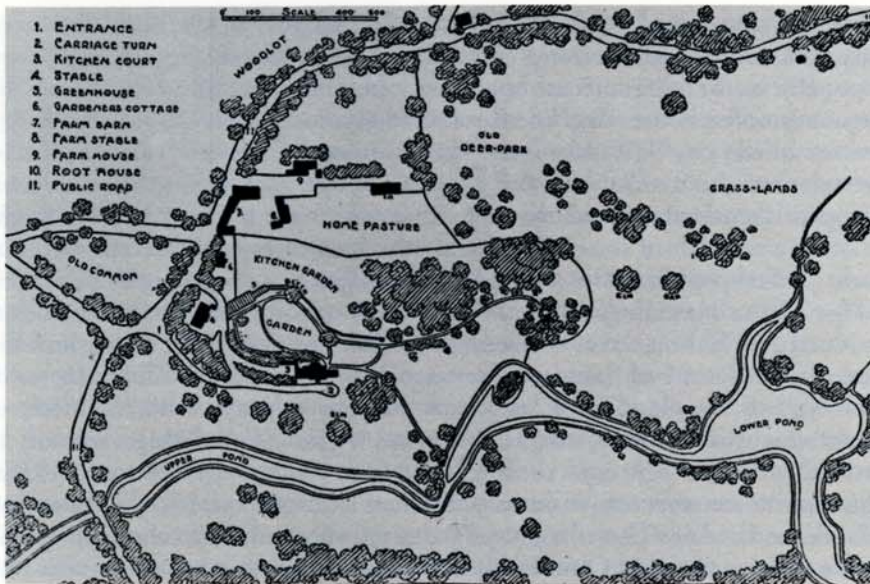


Fig. 8. Charles Eliot, Plan of The Vale, the Lyman estate, Waltham, Massachusetts, 1889.

Charles Eliot, "The Vale," *Garden and Forest* 2 (March, 1889).

lishments of Tories and Patriots alike. Boston and her surrounding sister cities grow continually. Farm after farm, and garden after garden are invaded by streets, sewers and waterpipes, owners being fairly compelled to sell lands which are taxed more and more heavily. Before destruction overtakes the few old seats now remaining, it will be well to make some sort of record of their character and beauty.<sup>17</sup>

In all these articles there seem to be common threads of importance. Eliot is concerned with the documentation of the estates and, therefore, with the preservation of the cultural content of these sites. Although never fully stated, Eliot was probably also concerned about the regional cultural traditions that these houses represent. There is no indication in Eliot's own writings that these articles or designs like the Longfellow Memorial Garden were intended as reinforcement for the beleaguered Yankee establishment and as lessons for the Americanization of the burgeoning Boston immigrant population. He was, however, certainly concerned about improving the conditions for the urban poor through his designs for the Boston metropolitan park system, and his father, who became a zealous advocate for park building, clearly saw the Americanization process as one of the major benefits of these democratic spaces.<sup>18</sup>

The ideas that Eliot evolved during his period of study abroad and demonstrated in his early designs and writings were crystallized into the most mature and far-reaching proposal in an article for *Garden and Forest* in February, 1890, entitled, "The Waverley Oaks, A Plan for their Preservation for the People."<sup>19</sup> Here Eliot was dealing with a site that possessed all the value and potential that he considered most important. The Waverley Oaks was a stand of aboriginal trees overlooking a series of ponds and the stream of the Beaver Brook on the border of Belmont and Waltham, Massachusetts. The stream had first been dammed in the late seventeenth century for saw-milling and continued to be used for various light industrial purposes into the nineteenth century.<sup>20</sup> The ponds and falls had been celebrated in the poetry of James Russell Lowell. The site was the residence of the landscape architect Robert Morris Copeland, whose important 1859 treatise, *Country Life*, included the view of the stream and mill wheel from the title page.<sup>21</sup> Winslow Homer, when he lived in Belmont during the 1860s, had painted the Oaks (Fig. 9). The Waverley Oaks, therefore, possessed that overlay of cultural association with a unique natural resource that Eliot emphasized in his vision for landscape preservation.

The Waverley Oaks, and Eliot's concern for their preservation, raise the important, although often denied, issue of the relationship of landscape





Fig. 9. Winslow Homer, *Waverley Oaks*, 1864.

Courtesy of the Thyssen-Bornemisza Collection, Lugano, Switzerland.

painting to landscape architecture. In the third quarter of the nineteenth century, Boston adopted a strong cultural alliance to contemporary Paris, seen especially in the monumental boulevard of Commonwealth Avenue and the mansard-roofed houses that lined it and adjacent streets in the new Back Bay district of the city.<sup>22</sup> Within those houses, many of Boston's leading citizens ornamented their walls with the genre-landscape paintings of the Barbizon group of French artists and the Americans who were inspired by their work. Eliot, as a member of the city's cultural aristocracy, was reared in this environment of Francophilia. The landscapes he sought to preserve, and indeed his image of the New England landscape, were conditioned by this Barbizon vision.<sup>23</sup> The Boston artists flocked to the Waverley Oaks (Fig. 10) to find the same kind of primeval forest environment that the Barbizon painters depicted. The type of woodland Eliot sought to preserve contrasts with the kinds of landscapes that Olmsted sought to create. A gentle undulating variation of ground form and light and shadow, still water and rounded planting groups characterize the seventeenth century idealized landscapes of Nicolas Poussin or Claude Le Lorraine. These landscape paintings speak of much the same gentle pastoral recreation that Olmsted desired for his passive, restorative spaces. By contrast, Eliot sought to preserve the characteristic and the unique New England landscape—both the unspoiled environment and the landscape that showed man's interaction with his surroundings. Like the canvases of William Morris Hunt, the leader of Boston painters' and patrons' fascination with the Barbizon image, Eliot's landscapes expressed the primeval conditions of the New England countryside and the settings of everyday life.

What Eliot proposed in his essay on the Waverley Oaks was a comprehensive concept of preservation:

Within ten miles of the State House there still remain several bits of scenery which possess uncommon beauty and more than usual refreshing power. Moreover, each of these scenes is, in its way, characteristic of the primitive wilderness of New England, of which indeed, they are surviving fragments...[He then proceeds to suggest the establishment of a state commission to oversee metropolitan landscape planning, but suggests that:] This end might better be attained by an incorporated association, composed of citizens of all the Boston towns, and empowered by the state to hold small and well-distributed parcels of land free from taxes, just as the Public Library holds books and the Art Museum pictures.<sup>24</sup>

As has been fully documented by several scholars, Eliot moved rapidly from this concept to enlisting the assistance of key supporters like Frederick Law Olmsted and Charles Sprague Sargent, to utilizing the base of the Appalachian Mountain Club to launch a state-wide meeting of leading citizens, to the writing and passage of an act by the state legislature establishing the Trustees of Public Reservations. Now known simply as the Trustees of Reservations, this private-sector, not-for-profit organization continues to acquire and maintain lands significant for their natural beauty, unique resources and cultural associations throughout the Commonwealth of Massachusetts.

With comparable speed, Eliot turned from the private-sector base of the Trustees to a campaign in 1893 for the creation of the Boston Metropolitan Park Commission by state legislation. In both of these efforts, Eliot displayed his exceptional ability to identify broad problems and develop appropriate, sophisticated and novel solutions, and to mount impressive public education and lobbying campaigns that ensured success. When one contrasts Eliot's efficiency and prowess in these schemes with the decades of agonizing frustration that Olmsted endured in his dealings with public officials, one sees again important distinctions between these two men and their periods. Before discussing the actual program and progress of the Boston Metropolitan Park Commission, however, it is necessary to sketch briefly the context for these events.



The ideal of metropolitan landscape planning was not new to Boston or to Eliot. As early as 1844, in attempting to deal with the Charles River and Back Bay development for Boston, Cambridge and Brookline, a unified park-like development had been proposed.<sup>25</sup> In the early discussions of a park system for Boston, from 1869 onward, proposals for metropolitan planning consistently emerged, such as the schemes of Robert Morris Copeland and his engineering partner, George Wadsworth. Metropolitan landscape planning for Boston, however, did not succeed until the 1890s.

Also important in the discussion of Eliot's metropolitan planning ideal is the concurrent history of the conservation movement during the 1880s. The 1885 action of the New York State Legislature in setting aside thousands of acres of the Adirondack Forest as safe watershed district for New York City was preceded on a smaller scale by a comparable act in Lynn, Massachusetts, north of Boston in 1882.<sup>26</sup> The Lynn town fathers and private individuals raised \$70,000 for the acquisition of the Lynn Woods, a rugged, forested district that had originally been designated as commonland in the seventeenth century because it was unsuitable for farming.<sup>27</sup> This large forest, which extended into two adjacent communities, was preserved for both the water quality of its reservoirs and as recreation grounds for the factory workers in Lynn, the City of Shoes.

Key to understanding the reason for the creation of a metropolitan park system in Boston at this time is the rate of urban expansion—through both rapid population growth and annexation of surrounding communities.<sup>28</sup> By the 1890s, the rings of urban/suburban development that pushed north, south and west from Boston were served by an elaborate transportation network of railroad, streetcar and subway lines. Through this expanding web of transportation, all levels of society theoretically had access to the entire system of metropolitan parks. Eliot was committed to creating a uniform geographical distribution of park types for all levels of society.

After a rapid yet intensive survey of available land within a ten mile radius of the Massachusetts state house, Eliot devised a comprehensive system of parklands for the metropolitan district. These included: 1) ocean-front beaches; 2) harbor islands and beaches; 3) tidal estuaries of the Charles, Mystic and Neponset rivers, emptying into Boston Harbor; 4) woodland reservations from the scale of the fifty-eight acres for Beaver Brook, the reservation containing the Waverley Oaks—which was the first property acquired by the new commission—to immense reserves of thousands of acres, such as the Blue Hills to the south and the Middlesex Fells to the north. The fifth component of this scheme was the playgrounds and urban squares that were deemed the responsibility of individual communities, not the metropolitan commission.

Characteristic of Eliot's achievements was his transformation of Revere Beach, an unregulated district that was overrun by railroad lines, industrial uses, and shanty-like residences. Eliot possessed both the vision to see the redeemed value of this beach and the power to attack the problem. He and the Metropolitan Park Commission systematically moved the railroad back from the beach and acquired property to permit a uniform public use of the site, enhanced by bathing and eating pavilions and a promenade on the high ground (*Fig. 11*). While the changes were perhaps more drastic and obvious at Revere Beach than in the other reservations, Eliot demonstrated an ability to set specific goals and achieve them quickly.

Conducted under a separate authority but clearly related to the master metropolitan park plans was the municipal park system that Eliot devised for the City of Cambridge. The largest and most important component of this system was the riverfront park designed to stretch from the West Boston Bridge (now the Longfellow Bridge) at the mouth of the Charles River all the way up to the Mount Auburn Cemetery property on the Watertown border. The improvements of the Cambridge side of the Charles River that he accom-



Fig. 10. Charles Eliot, Photograph of the Oaks at Beaverbrook Reservation, Waltham, Massachusetts, ca. 1891.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts.





Fig. 11. Charles Eliot, Revere Beach, Revere, Massachusetts, ca. 1897.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts.

plished through this commission he hoped to complete on the Boston side through the Metropolitan Park Commission.

Eliot's work with both the Cambridge and Metropolitan park commissions displayed his ability to function in a political arena that was changing as rapidly as was the profession of landscape architecture during Eliot's career. In many phases of public activity, the late 1880s and the 1890s were a period of centralization of power and introduction of modern administrative methods. The drive to scientific management seen in municipal administrative reform at this time was the result of comparable, earlier development in business management.<sup>29</sup> The ascendancy of the centralized corporate capitalist system became a model for the large-scale analysis of needs and scientific management of resources that may be seen in municipal reform, in the academic restructuring that Eliot's father had implemented, and ultimately even in the comprehensive, regional landscape preservation program that he himself devised. While Eliot was not always in sympathy with the bottom-line mentality of some businessmen on the commissions with which he worked, he understood their concerns and seems to have appropriated some of their methods for his system of regional planning.

Despite the advantages of vision, intellect, social position and indefatigable energy, Eliot did not succeed in all his efforts to establish a regional park system for the Greater Boston Basin. In fact, it was the same isolationist myopia (the unwillingness of one community to cooperate with another, which Eliot had attempted to overcome with the metropolitan park system) that provided his major defeat. In 1892, the year before the passage of the Metropolitan Park Commission Act, Eliot was appointed to the Special Commission on the Improvement of the Charles River Basin. Those who know Boston today perhaps do not realize how relatively recently the Charles River was dammed, converting it from the brackish mix of fresh and salt water alternating with broad expanses of mud flats to a uniform fresh water park. The creation of this central waterpark was Eliot's greatest unrealized dream. It was precisely the political and social power structure that had supported so much of his grand landscape plan that ensured the defeat of the Charles River damming and park development during Eliot's lifetime. Indeed, strong opposition to the development of the Charles River Basin as a park came from the wealthy and powerful property owners along Boston's Beacon Street who feared they would lose their waterview through new development opportunities facing the River or would find their backyards overrun by the immigrant working classes coming to the Charles for recreation.

Nevertheless, Eliot's vision for the Charles River Basin, the sources for his ideas, and the methods used to convince his fellow Bostonians provide further insights into his landscape planning scheme for the entire region. While Boston foresaw no place to develop a "Central Park" comparable to that of New York City, the embankment and improvement of the Charles River Basin had been a dream from the mid-century onward. In the 1890s, Eliot exercised his considerable talents as a writer, publicist and lobbyist to persuade the City of Boston to cooperate in a master plan for the improvement of the Charles River. In his 1892 report for the Charles River Commission he made convincing descriptions of the civic pride, sanitation, recreation, and real estate development that would surely emerge from the cleaning of the River and the improvement of the riverbanks. In addition to the objections of the Beacon Street residents, there was an assumption that the tidal flow of the Charles acted as scourer for Boston Harbor, a myth that the most sophisticated scientific reports found hard to negate. But Eliot introduced in his report photographs and descriptions of the Alster Basin in Hamburg, Germany (*Fig. 12*) which ultimately became the model for the development of the Boston side of the Charles River shoreline by Charles Eliot's protegee Arthur Shurcliff in the 1920s and 1930s.<sup>30</sup>



Charles Eliot died of meningitis in the spring of 1897. In 1893, he had been convinced to join in the establishment of a new firm under the name of Olmsted, Olmsted & Eliot. He had constantly assumed a larger percentage of the responsibilities of the Olmsted, Olmsted and Eliot office while continuing his heavy commitment to the Cambridge Park Commission and the Metropolitan Park Commission. One of Eliot's final accomplishments is really an icon for all his efforts. In his last year, he directed a team of engineers, botanists and landscape architects in an exhaustive survey of the resources of the Metropolitan Park System and in the formulation of guidelines for the management and enhancement of these reservations. Published posthumously in 1898 for the Metropolitan Park Commission, *Vegetation and Scenery in the Metropolitan Reservations of Boston* is the clearest summary of Eliot's method of comprehensive analysis and organization on which to base planning for the open space and recreation needs of a region.<sup>31</sup> Perhaps overwhelmed by the scientific and bureaucratic format of this publication is the underlying goal of Eliot's life, the reservation of those unspoiled elements of the New England landscape and his visionary plan for their preservation for the people.

In summary, Eliot's ideals and accomplishments can be understood in three ways.

- 1) He articulated in both his writings and his projects the need for and the methods to ensure the preservation of rural and wilderness areas that possess resources of natural and cultural significance and that can be actively experienced as an antidote to the emotional and mental pressures of modern urban life.
- 2) His work is a definite reflection of reformist goals of turn-of-the-century Americans, especially Bostonians, and represents the same striving for clear order based on thorough knowledge, and the centralization of power in the hands of enlightened professionals, that can be seen in American business, governmental and educational reform during his brief lifetime.
- 3) Finally, Eliot's vision for the New England landscape is a fascinating personal amalgam of Olmstedian inheritance, English and German landscape theory, the Barbizon School of landscape painting, a sensitivity to the character of the New England cultural landscape, and the enthusiastic outdoorsman, among other threads, while it retains a comprehensiveness and logic as timely and instructive as it was a century ago.

In a chapter entitled "Growth Invincible" from his 1906 book, *The Future in America*, H. G. Wells contrasts recent visits to New York and Boston:

If possible it is more impressive, even, than the crowded largeness of New York, to trace the serene preparation Boston has made through this (Metropolitan Park) Commission to be widely and easily vast. New York's humanity has a curious air of being carried along upon a wave of irresistible prosperity, but Boston confesses design. I suppose no city in all the world...has ever produced so complete and ample a forecast of its own future as this commission's plan of Boston.<sup>32</sup>

What Wells saw around Boston was representative of what Eliot had envisioned. Although it was not as consciously designed a landscape as other contemporary park making, Eliot's ideas clearly "confess design" and attempt to forecast a future not only for Boston but for the region as well.

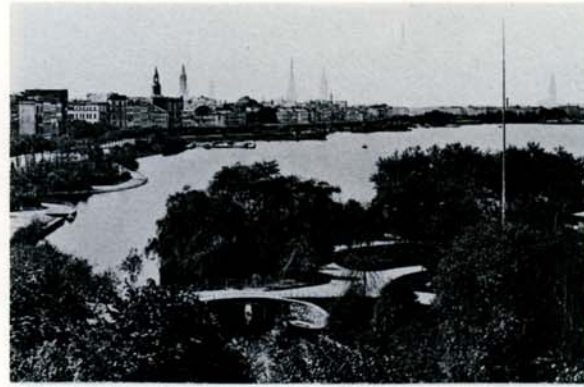


Fig. 12. The Alster Basin, Hamburg, Germany, ca 1892.

*Report of the Charles River Basin Commission. Boston, 1902.*



## FOOTNOTES

1. The most important basis for information on Eliot is the biography published by his father: [Charles W. Eliot], *Charles Eliot. Landscape Architect...* (Boston and New York: Houghton, Mifflin and Company; Cambridge: The Riverside Press, 1902). A more recent summary of Eliot's life and work is found in Norman T. Newton, *Design on the Land. The Development of Landscape Architecture* (Cambridge: The Belknap Press of Harvard University Press, 1971), 318-336. See also, E. Lynn Miller, "Charles Eliot" in William H. Tishler, ed., *American Landscape Architecture: People and Places* (Washington: The Preservation Press, 1989).
2. Eliot's conception of a private board of trustees established to accept or acquire real property of natural, scenic or historic significance was a clear precedent for the establishment of the National Trust in Great Britain in 1895 and ultimately for our own National Trust in 1949.
3. Surprisingly, historians of American urban and regional planning have not understood Eliot's influence as clearly as landscape historians. For example, compare Cynthia Zaitzevsky's attention to Eliot in her excellent monograph, *Frederick Law Olmsted and the Boston Park System* (Cambridge: The Belknap Press of Harvard University Press, 1982; especially chapter 3, "The Boston Park Movement") with *The American Planner. Biographies and Recollections*, edited by Donald A. Krueckeberg (New York and London: Methuen, 1983). Even given Krueckeberg's larger spectrum, he only briefly notes Eliot's partnership with Frederick Law Olmsted and John Charles Olmsted, his influence as a career model for the influential John Nolen, and his relationship to his nephew, Charles W. Eliot, II, landscape architect and regional planner.
4. Letter, Frederick Law Olmsted, Sr., to his partners (John Charles Olmsted, Frederick Law Olmsted, Jr., and Charles Eliot), Biltmore, North Carolina, October 28, 1893, Frederick Law Olmsted Collection, Manuscript Division- Library of Congress, Washington, DC (hereinafter referred to as the Olmsted Collection).
5. For a concise description of Olmsted's landscape philosophy, see: Charles E. Beveridge, "Frederick Law Olmsted's Theory of Landscape Design," *19th Century* 3, no. 2 (Summer, 1977), 38-43.
6. The modern literature on Olmsted's work as a landscape architect is large and growing. The most reliable biography is by Laura Woods Roper, *FLO: A Biography of Frederick Law Olmsted* (Baltimore: Johns Hopkins University Press, 1973). Useful for illustrations and plans of Olmsted landscapes is Julius Gy. Fabos, Gordon T. Milde and V Michael Weinmayr, *Frederick Law Olmsted, Sr.. Founder of Landscape Architecture in America* (Amherst: University of Massachusetts Press, 1968). For Eliot's designs, see: Eliot, *Charles Eliot, passim*.
7. Biographical information on Eliot's parents and ancestors can be found in either the biography by his father or Henry James, *Charles W. Eliot. President of Harvard University. 1869-1909* (Boston and New York: Houghton Mifflin Company; Cambridge: The Riverside Press, 1930), *passim*.
8. Analysis of Charles W. Eliot's contributions as an educator and public figure can be found in Hugh Hawkins, *Between Harvard and America. The Educational Leadership of Charles W. Eliot* (New York: Oxford University Press, 1972).
9. Several biographies of Roosevelt stress and document the importance of camping and hunting expeditions for the future president, including David McCullough's *Mornings on Horseback* (New York: Simon and Schuster, 1981) which also includes a relevant and useful chapter on Harvard in the later 1870's.



10. For a discussion of Olmsted's projects during this period and Eliot's involvement, see: Zaitzevsky, *Olmsted and the Boston Park System*, *passim*. and 131-132.
11. Newton, *Design on the Land*, provides initial information on many of these younger members of the Olmsted office, especially in his chapter on the founding of the American Society of Landscape Architects.
12. Letter, Frederick Law Olmsted, Sr., to Charles Eliot, October 28, 1886, Olmsted Collection. Earlier in this letter, Olmsted wrote:  

I know that you will feel more than most men what you owe to your profession—that is to “the cause.” I mean beyond the zealous pursuit of it. In one way I wish to give you my opinion, derived from reading your letters chiefly, that you are able to serve it better than any living English writing man... Perhaps better than any other man now writing.

The letters between Olmsted and Eliot during the years that the latter was abroad show the strong affection and respect that these men shared for each other. Some of these letters are partially reproduced in chapters 4-10 of Charles W. Eliot's biography of his son.
13. This effort to entice Eliot back to Brookline to assist on the Stanford designs is documented in a three-way correspondence between Olmsted, Charles Eliot and President Eliot from June 8-27, 1886, Olmsted Collection, Library of Congress.
14. Eliot read Prince Hermann Ludwig Heinrich von Puckler-Muskau's *Andeutungen über Landschaftsgartnerei, verbunden mit der Beschreibung ihrer praktischen Anwendung in Muskau* (Stuttgart: Hallberger'sche Verlagshandlung, 1834) during his time in England and wrote “Muskau—A German Country Park” for *Garden and Forest* 4 (January 28, 1891), 38-39.
15. Charles Eliot, “White Park, Concord, New Hampshire,” *Garden and Forest* 3 (August 13, 1890), 390, reprinted in Eliot, *Charles Eliot*, 230-233.
16. *Garden and Forest. A Journal of Horticulture. Landscape Gardening and Forestry*, to which Eliot was a frequent contributor, was “conducted” in Boston by Charles Sprague Sargent, director of the Arnold Arboretum. Ironically, its decade existence corresponds almost exactly to the period of Eliot's professional career. The magazine unfortunately ceased publication after its editor, William Augustus Stiles, died in October, 1897. For this crucial decade in the development of the profession of landscape architecture, however, *Garden and Forest* is a singularly important measure of the ideas and ideals of the emerging profession.
17. Charles Eliot, “The Gore Place,” *Garden and Forest* 2 (February 20, 1889), 86.
18. Charles W. Eliot wrote profusely on the importance of liberty to a democracy and the importance of individual accomplishment. One of the few areas in which he saw the need for collective action was in park making. His biography of his son is only one indication of the central importance he gave to the park movement in Boston and nationally. Following his son's death, he was instrumental in introducing a graduate curriculum in landscape architecture at Harvard, asking Frederick Law Olmsted, Jr., and Arthur Shurcliff, two Eliot proteges to direct the program.
19. Charles Eliot, “The Waverley Oaks,” *Garden and Forest* 3 (March, 5, 1890) 117-118; reprinted in Eliot, *Charles Eliot*, 316-318.
20. For further information on the development of the Beaverbrook Reservation and on the use of the property from the seventeenth century onward, see: Eleanor McPeck, Keith Morgan and Cynthia Zaitzevsky, eds., *Olmsted in Massachusetts: The Public Legacy, A Report of the Inventory Committee of the Massachusetts Association for Olmsted Parks*



(Brookline: Massachusetts Association for Olmsted Parks, 1983), 1-7.

21. Robert Morris Copeland, *Country Life: A Handbook of Agriculture, Horticulture and Landscape Gardening* (Boston: Jewett, 1859). Before moving to Belmont, Copeland lived in Lexington and practiced landscape gardening. In 1855, he formed a partnership with Horace William Shaler Cleveland in Boston offering services in "landscape architecture and ornamental gardening." Copeland & Cleveland were unsuccessful entrants in the 1857 competition for the design of Central Park in New York City, and their partnership seems to have dissolved around the time of the Civil War. Cleveland subsequently served as the landscape architect for the South Park Commission in Chicago and for the Minneapolis Park Commission. Relatively little is known about Copeland's subsequent work.
22. Bainbridge Bunting, *Houses of Boston's Back Bay. An Architectural History 1840-1917* (Cambridge: The Belknap Press of Harvard University Press, 1967), chapter 5, discusses the influence of contemporary French culture on Boston architecture and culture.
23. For an analysis of the Barbizon fascination among Boston collectors, see: Carol Troyen, *The Boston Tradition. American Paintings from the Museum of Fine Arts, Boston* (New York: American Federation of the Arts, 1980), 21-27.
24. Eliot, "Waverley Oaks," 318.
25. The development of the Cambridge side of the Charles River basin has been documented by Therese Alduino, "Parks, Politics and City Planning. The Design of the Cambridge River Front, 1893-1909," unpublished senior thesis, Fine Arts Department, Harvard University, 1984, *passim*.
26. Frank Graham, Jr. *Man's Dominion. The Story of Conservation in America* (New York: M. Evans and Company, Inc., 1971). See also: Roderick Nash, *Wilderness and the American Mind* (New Haven: Yale University Press, 1967).
27. Sylvester Baxter, *Lynn's Public Forest. A Hand-book Guide to the Great Woods Park in Lynn* (Boston: Author's Mutual Publishing Company, 1891).
28. Although he focuses on the process of suburban growth in only Dorchester, Roxbury and West Roxbury, Sam Bass Warner, Jr., provides a method for analysis of this development in *Streetcar Suburb. The Process of Growth in Boston (1870-1900)* (Cambridge: Harvard University Press, 1962).
29. Municipal reform and the professionalization of the civil servant has been chronicled by Jon C. Teafor in *The Unheralded Triumph. City Government in America 1870-1900* (Baltimore and London: Johns Hopkins University Press, 1984). Teafor discusses the contributions of Olmsted, Cleveland and Eliot in his chapter 9, "Creating a Humane and Ordered Environment."
30. In June, 1930, Arthur Shurtleff had his named changed legally to Arthur Shurcliff. The second spelling has been used throughout this article for consistency.
31. Charles Eliot, *Vegetation and Scenery in the Metropolitan Reservations of Boston. A Forestry Report Written by Charles Eliot and Presented to the Metropolitan Park Commission. February 15. 1897 by Olmsted. Olmsted & Eliot* (Boston, New York and London: Lamson, Wolfe and Company 1898).
32. H. G. Wells, *The Future in America* (New York: Harper & Row, 1906), 49. I thank my former colleague, Cecelia Tichi for bringing this discussion to my attention.





Founded in 1980, the National Association for Olmsted Parks (NAOP) is a national network of volunteers and professionals, working to promote and protect the Olmsted legacy. NAOP is a non-profit membership organization.

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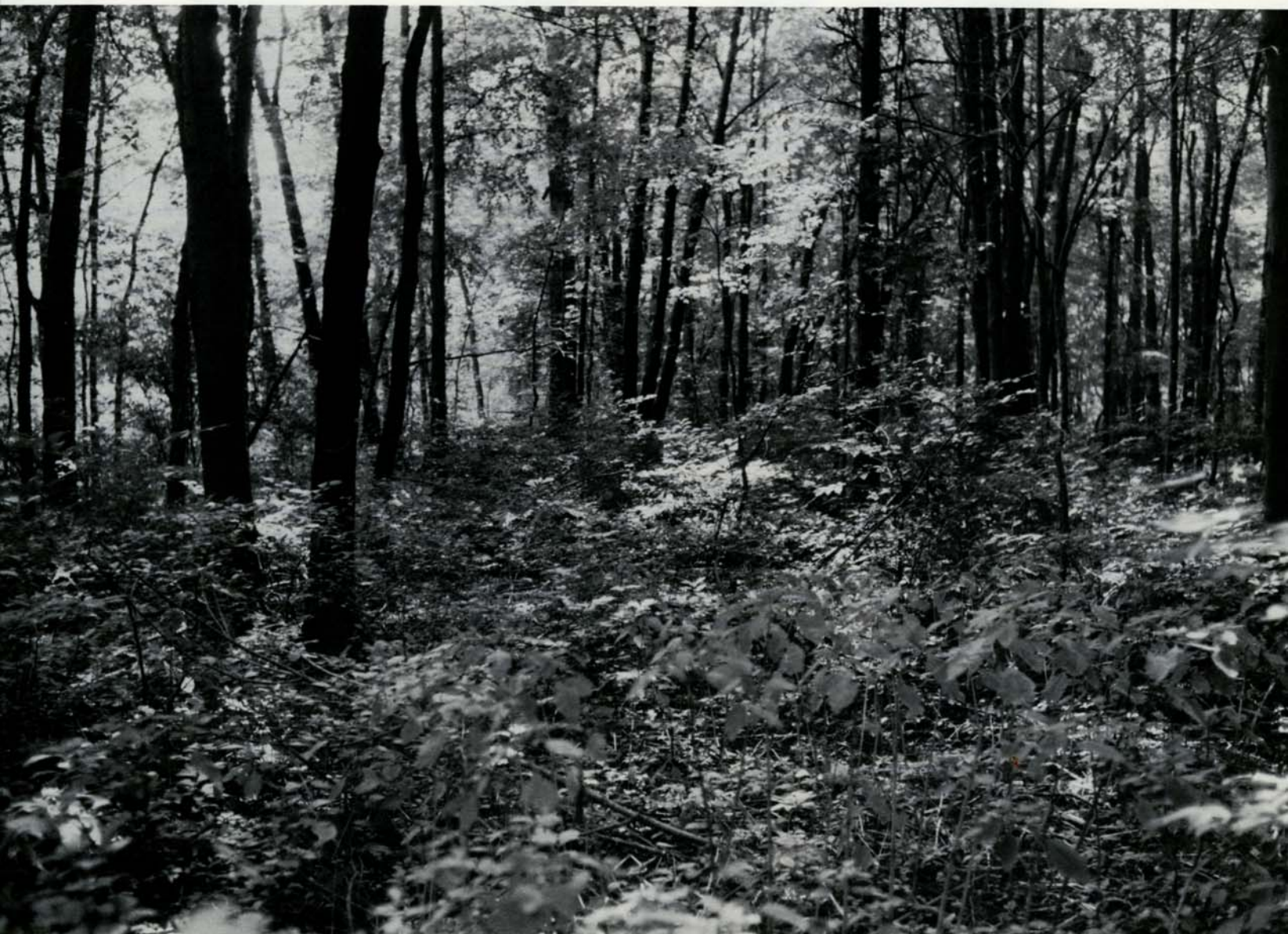
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AN ECOSYSTEM  
APPROACH TO  
WOODLAND  
MANAGEMENT:

The Case of Prospect Park

*by Edward Toth*



## AN ECOSYSTEM APPROACH TO WOODLAND MANAGEMENT:

### The Case of Prospect Park

*by Edward Toth*

Traditional urban park management has centered on maintaining heavily used areas by employing techniques that are largely horticultural in nature. Horticultural systems (and similarly functioning turf systems) require high levels of maintenance, taxing the resources of most park managers. Trees, shrubs, and ground covers, largely non-native in origin, are employed in distinct groupings usually for aesthetic or functional reasons. Plants in these systems, usually located in full sun, grow profusely and must be constantly kept in bounds to maintain their desired effect. Bare soils in such systems are ripe for colonization by invasive weedy species, which are often stronger competitors than their horticultural cousins, further increasing the amount of labor required to maintain them (Fig. 1). Moreover, most horticultural species in common use are either sterile or unable to reproduce successfully outside of their native ecosystems. As such, they are largely unable to sustain themselves, while their weedy competitors excel at reproduction and are more likely to be self-perpetuating.

Along with these horticultural zones, most parks of any size contain proportionately large acreage of remnant native woodland. With work forces largely limited to caring for high usage, high visibility areas of parks, wooded areas have traditionally received little or no attention. For the most part there has been a long standing policy of benign neglect of woodlands. This policy has been fueled by a belief, or at best a hope, that park woodlands would simply take care of themselves while maintenance staffs concentrated on mowing lawns or tending to shrub or flower beds. Where efforts have been made to maintain woodland ecosystems, urban park managers often mistakenly use the same intensive horticultural techniques they employ elsewhere in their parks. Given the large acreage of woodland in many parks, such an approach is doomed to failure unless huge resources of money and manpower are available.

Most urban woodlands are seriously deteriorated and require new management strategies, such as those being developed for use in national and state park systems. These strategies are based on natural resource management techniques. Applied in city parks they would treat urban woodlands as natural ecosystems and aid in allowing these areas to largely maintain and perpetuate themselves. One of the important precepts of natural resource management is the examination of a site to evaluate it in terms of its disturbance ecology. Horticultural systems are the epitome of disturbance ecology. Bare earth is perpetuated and abundant nutrients and sunlight are constantly provided. There is competition for these resources between ornamental plantings and invasive weeds which, because of their particular means of growth and reproduction, are highly successful at competing in disturbance sites. Natural systems, by contrast, are relatively stable. Bare soil is practically nonexistent, and light levels and available nutrients are greatly reduced. This is not to say that disturbances



Fig. 1 Horticultural plantings compete with aggressive, non-native weeds. Bindweed nearly covers a shrub.

C.T. Wemple





Fig. 2 The woods today in Prospect Park.

C.T. Wemple

do not occur in natural systems, but they are minimized and the native species that come to inhabit the disturbance sites are not nearly as disruptive as alien weed species. Natural resource management recognizes that natural systems eliminate or minimize disturbances, resulting in much more stable environments and, of great importance to park managers, in the long run they require lower levels of investment in labor and materials than horticultural (i.e., disturbance) systems. Therefore, given the limited resources of most park systems, natural resource techniques offer a more realistic approach to maintaining healthy urban woodlands.

### THE WOODLANDS OF PROSPECT PARK

In Prospect Park there are about 100 to 150 acres of remnant woodlands (Fig. 2). The woodlands today are in various states of deterioration. Located in Brooklyn, New York, in the heart of one of the most intensively urbanized settings in the world, the park has annual visits in excess of five million people. Designed and built starting in 1866 by Frederick Law Olmsted and Calvert Vaux, Prospect Park was intentionally sited on the only existing high ground located close to the rapidly growing city of Brooklyn. The high ground was formed by the terminal end moraine of the last glacial epoch, and prior to settlement was covered in woodlands characteristic of western Long Island. By the mid-1800s, after having been farmed for more than two hundred years, the area was eagerly sought out by wealthy Brooklynites as a breezy, healthy retreat from the sweltering heat and poor sanitary conditions of the city. Olmsted and Vaux designed Prospect Park as a retreat for all classes of citizenry.

Recently discovered photographs from the early years of Prospect Park's construction reveal the woodlands within the park site. Some of the woods appear young and even-aged, indicating that they were previously cleared and had been only recently allowed to revert to forest land (Fig. 3). Other photographs show stands of mixed-age trees, indicating that there were longer periods between disturbances (Fig. 4). The lack today of any truly old-growth trees suggests that all of the woods of Prospect Park had fallen at least once to the axe for timber or firewood, if not completely cleared and grubbed for agricultural use. Most of the woods were located on the steepest hills of the site, further contributing to the many problems these woodlands would face as they became parkland. Clearly, Olmsted and Vaux inherited a site with woodlands of mixed quality and already compromised integrity. Conditions since the 1860s have





Fig. 3 Prospect Park under construction, circa 1870. Even-aged trees indicate the area was previously clearcut.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts

only served to further compromise the health of the park's woodlands.

Today in Prospect Park even the most casual observer can see that the woods are not healthy. A walk through the woods quickly reveals slopes denuded of any vegetation except scattered overstory trees. Gone from most areas of the woods is the understory layer that is so important to functioning woodlands. This layer serves to trap leaf litter and decaying woody vegetation, thus returning nutrients and organic matter to the soil and recycling them back into the system. The rich humic soils, in turn, provide the proper environment for the germination of seeds of the diverse plant species that make up both the woodland canopy and the understory. This ensures the perpetuation of the entire woodland ecosystem. As the most vital and diverse layer of the woods, the understory also provides an essential habitat for unique animal and plant communities. In Prospect Park the understory layer has been lost over the years for a variety of reasons. Chief among these are soil compaction, soil erosion, and New York City Parks Department policies of the 1960s and 70s, which called for the wholesale removal of understory "brush" because of perceived notions that it posed a threat to public safety.

Where people have made their way up and down the park's hillsides, bare compacted soil is found that will not support any visible plant growth (Fig. 5). A look below the soil surface of these so-called "desire line paths" reveals that these areas are also devoid of any tree roots, because the soil is so dense that the fine feeder roots of adjoining trees cannot penetrate through it. These paths act as barriers across the woodlands, effectively limiting the growing space of adjoining plants, and adding stress to the plant communities in the form of decreased water, air, and nutrient uptake.

Equally apparent in Prospect Park is the tremendous loss of soil from the woodland slopes due to erosion. This is seen in the exposed roots of trees, many with as much as one to three feet of topsoil gone from around them. Devoid of any vegetation and severely compacted, the woodland soils lose their ability to absorb rainwater. The resulting overland runoff gains speed and volume as it travels downslope and soon has the power to strip topsoil away from the hillsides, leaving only the sterile, more resistant subsoils behind. Such conditions adversely impact the health of individual trees, as can be seen in the aftermath of heavy wind storms in the park which are almost always accompanied by windfalls of seemingly healthy trees. An examination of their root systems, however, reveals that they have suffered a tremendous loss of roots due to soil compaction, causing them to simply topple over. Moreover, many trees within the park's woodlands are suffering from advanced cases of woodrot and general canopy decline, which can

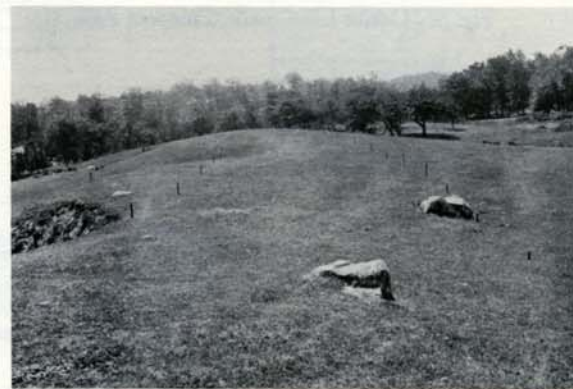


Fig. 4 Prospect Park, circa 1870. Mixed-age stand of trees indicates the area was not previously clearcut.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts





Fig. 5 "Desire Line" path, Prospect Park.

C.T. Wemple

be attributed at least in part to soil loss and compaction.

Beyond these obvious ills one must look through the eyes of a trained ecologist or forester to see that the problems of the park's woodlands are even more extensive. As trees have been lost from the canopy of the woods, light gaps have developed throughout the forest (Fig. 6). Ecologists recognize that forests have two distinct zones—forest interior and forest edge—which support very different associations of plant species. In the interiors of woodlands, where the level of light reaching the forest floor is low, only species adapted to these conditions are found. Typically, the understory layer includes saplings of the overstory tree species. Germinated from the seeds of their mature progenitors overhead, these saplings act as reserves in the understory layer available to replace the existing overstory trees when they die. Associated with the saplings is a whole array of plant and animal species adapted to woodland interior environments. Wherever a hole develops in the canopy cover, or in areas at the edge of a woodland, a completely different set of plant and animal species is found inhabiting these settings. In woodlands such as those in Prospect Park, where many formal paths as well as informal "desire line" paths exist, and where numerous light gaps have developed, the woods consist almost exclusively of woodland-edge species. The entire rich community of forest interior plants is missing or has been seriously compromised and fragmented by the light gaps.

Both woodland edges and light gaps in woodland interiors that are no longer populated by native species because of man-made disturbances are ripe for invasion by typical horticultural weeds as well as by a new set of weeds. Chief among these are introduced species of woody trees that for various reasons are highly invasive in disturbed native woodland settings. Weed-tree species, like their garden variety cousins, have evolved reproductive strategies that allow them to take advantage of unoccupied ground by quickly colonizing disturbance sites with their progeny. This, coupled with their ability to tolerate sun or shade, has made them highly successful. In Prospect Park the main weed-tree species are Norway Maple (*Acer platanoides*), Sycamore Maple (*Acer pseudoplatanus*), Paper Mulberry (*Broussonetia papyrifera*), and Tree-of-Heaven (*Ailanthus altissima*). All four species are capable of forming dense monocultures because they produce thousands of seeds that have a high rate of germination (Fig. 7). In most urban parks there are sections where these and other species can be found in dense colonies to the total exclusion of the original native vegetation. Typically, these species are also very good at occupying poor soils that are low in nutrients and are highly compacted. Consequently, they have come to occupy the most disturbed sites in Prospect Park.

The question may arise: aren't these species useful to have in a park as early colonizers and stabilizers of disturbed sites? If the non-native species did not form dense monocultures, the answer might be yes. But the fact that they prevent native species from recolonizing disturbed areas makes them short-term solutions at best.

On the other hand, species that act as early colonizers in native systems present a radically different story. In the Northeast, two common colonizing genera are cherry (*Prunus* sp.) and locust (*Robinia pseudoacacia*). Typically, they do not exclude other native species from growing alongside them. In Prospect Park, for instance, oak, sweetgum, and tulip tree seedlings are found among the cherries and locusts.

There is one other significant difference between native and non-native colonizers. The natives are short-lived and sun-loving, with a typical life span not exceeding fifty years. Many of the invasive non-natives are much longer lived and shade tolerant. They will come to dominate the canopy and the understory indefinitely. Cherries and locusts may hold the canopy for a short time, but as the long-lived oaks and other species slowly make their way into the canopy layer, the colonizers will die out. These are woodlands with a future.



In Prospect Park there are six main tasks that must be implemented to ensure that the woodlands begin the road to recovery:

- erosional slopes must be stabilized
- forest soils must be rebuilt
- invasive non-native species must be controlled
- light gaps in woodland interiors must be closed by replanting with native overstory trees
- the understory, in all of its complexity, must be restored to its vital role as a soil builder and plant nursery
- ongoing disturbance must be minimized.



Fig. 7 Dense colony of weed-tree species, Paper Mulberry and Sycamore Maple, exclude native species in understory.

### THE RAVINE I PROJECT

In Prospect Park, planning is near completion on a capital-funded restoration project of approximately fifteen acres of woodland, called the Ravine I project (Fig. 8). Work is scheduled to begin in 1993. Designed in conjunction with Walmsley Associates and the New York City Department of Parks, the Ravine I project will be the first phase of many projects carried out over the next twenty years to revitalize the park's natural areas. Planning for the Ravine I project has allowed the development of a restoration strategy for the woods of Prospect Park which is based on sound ecological principals. The project is designed to return the natural systems to a state of health in which they are largely self-sustaining and require only minimal future maintenance.

The original strategy for the Ravine I project called for a very traditional horticultural restoration of the site. Using a plant palette of largely exotic species, some of them invasive in their own right, the plant material was arranged in traditional landscape groupings for effect and beauty, with little regard to the ecological forces at work in the woods or to the consequences of trying to maintain fifteen acres of new horticultural plantings.

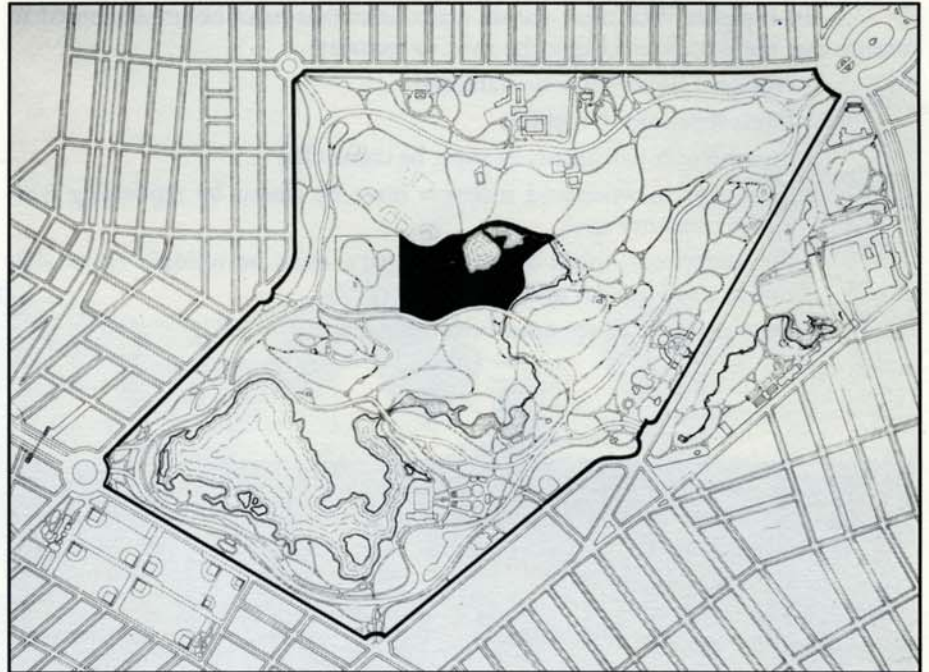


Fig. 6 Light gap in woods, Prospect Park. Erosion on the steep slope has resulted in the loss of the canopy cover. Tree-of-Heaven and Paper Mulberry thrive in disturbance site.

C.T. Wemple



Fig. 8 Location of Ravine I project site within Prospect Park.



The present strategy for the Ravine I project is a radical departure from the foregoing approach. In the initial stages of the project the woodland area was mapped to reveal these factors: the extent of erosion, the loss of tree canopy (that is, the extent of woodland light gaps), and the location of invasive species. This information provided the basis on which to estimate the cost and extent of the work to be done.

In the first year of the project efforts will center on stabilizing the site and making the soil a more acceptable planting medium. All eroded surfaces that were mapped will be stabilized in stages to restore lost soil and quickly establish an herbaceous cover in preparation for future replanting with woody species. In the first stage the soil surface will be scarified to break up surface compaction that has resulted from years of foot traffic on bare soil. Without this initial step rain cannot percolate down into the soil and most of it will run down the slopes, washing away the young plantings. After scarification is completed, any areas that have lost large volumes of topsoil will be restored to their original contours. In the next stage, twelve inches of well-rotted leaf compost will be layered on top to establish an instant organic layer in which to plant. Over this an erosion control blanket of the type commonly seen on highway berm projects will be spread and staked. This matting acts as a temporary "band-aid" to hold the soil in place until plants can establish themselves and bind the soil with their roots. Finally, vegetation will be planted through the matting at a density sufficient to allow their roots to knit the soil together by the time the matting decays.

The plants that were chosen to stabilize the soil—and indeed for the entire Ravine I project—were carefully selected based on research which investigated the original vegetational coverage that may have existed prior to settlement of the area. In an ecological restoration such as this, the use of native plants will ensure the greatest success for several reasons. First, they are the species that evolved over millions of years on the site and are therefore best adapted to local environmental conditions. Second, if the plants can be propagated from local populations that still exist, then the very specific set of local genetic adaptations that have occurred to ensure success in the local environment can be tapped. Last, local species are more likely to reproduce, thus better ensuring a self-perpetuating system.

Investigating and determining the native flora of Brooklyn is not an easy task and consists in part of educated guess work. By the mid-1800s much



of Brooklyn's native vegetational coverage had been eliminated, and unfortunately early floras and herbarium records are either non-existent or vague in their locational information. To date, the best source for Prospect Park has proven to be a flora of New York City dating from 1915, which gives fairly specific distributional information. In areas less urbanized than Prospect Park determination of the local flora may not be as daunting a task. In most urban or suburban parks some of the original vegetation coverage can be found and should be the starting point for constructing a planting palette for restoration projects. Chosen for the erosion control sites in Ravine I were ten herbaceous plants and one low-growing shrub, all of which spread by rhizomes and all native to the New York City area (Table 1). Plants with rhizomatous growth habit will quickly cover bare soil and bind it by forming dense colonies. These colonizers will be planted on a one-foot grid to insure total stabilization of the sites within one year. Each of the eleven species was selected to grow in one of three conditions: full sun, partial shade, or full shade. Of the eleven species, one, White Wood Aster (*Aster divaricatus*), is commonly found throughout Prospect Park and is an example of locating appropriate species on site to use in ecological restorations.

The Ravine I project will require approximately 125,000 to 150,000 plants. All are native species and most are unavailable from commercial nurseries. Until there is a large demand for the native plants of a given region, availability through commercial growers will be problematic. For the Ravine I project all the plant material will be contract grown. Because limited information on native species is available to commercial nurseries at this time, the contractor will be provided with detailed information on seed source, collection, and germination, as well as nursery propagation of these plants. Prospect Park employed a botanist who is well-versed in the propagation of the native plants of the New York City area to prepare the propagation documents for the Ravine I Project.

Concurrently, Prospect Park's newly created Natural Resource Crew will experiment with the propagation of other native species, so that this knowledge can be passed on to New York City's Parks Department nurseries which will soon be propagating native plants for use throughout the city's park system. Enough seeds will also be gathered from local plant populations to supply the Parks Department's nurseries for large-scale production of plants for Prospect Park. In this way as much local genetic diversity will be maintained as possible.

Work during the first year of the Ravine I project will also entail the elimination of all previously mapped invasive species from the site, including large-sized, mature trees that act as huge seed reservoirs. Tree removal in urban park settings is often controversial, but because of the nature of these species it is essential to eliminate them at the start of the project. Wherever feasible, trees slated for removal will be felled and left on site, to return the biomass to the site as part of the effort to restore the woodland soils. The stumps of the trees will be treated with a forestry herbicide to ensure that they do not resprout. Finally, all saplings and seedlings of these species will be uprooted. This will be done once a year for the length of the project to ensure that fresh colonies of the invasive species do not recur.

The last task in the first year of the Ravine I project will be to spread twelve inches of well-rotted leaf compost over the entire site to act as a soil conditioner. On steep slopes it will be secured with erosion control matting. The leaf mold will serve as the basis for preparing a suitable medium both for large-scale planting in the second year of the project and for self-seeding by existing overstory trees, many of which do not now successfully germinate because the soil is too compacted. The leaf mold will also start to renew the process of water infiltration and percolation, and begin to mitigate the destructive forces of water runoff. Localized water retention will greatly add to the general health of the woods.

In the second year of the project, all previously mapped light gap areas

## PLANTINGS FOR EROSION CONTROL

Shade	
Foamflower <i>Tiarella cordifolia</i>	moist/rich
White Wood Aster <i>Aster divaricatus</i>	mesic woods
Zigzag Goldenrod <i>Solidago flexicaulis</i>	mesic woods
Light Shade	
Hoary Mountain Mint <i>Pycnanthemum incanum</i>	xeric/slopes
Alumroot <i>Heuchera americana</i>	xeric/rocky
White Snakeroot <i>Eupatorium rugosum</i>	xeric/woods/edges
Purple Flowering Raspberry <i>Rubus odoratus</i>	xeric/woods/edges
New York Fern <i>Thelypteris noveboracensis</i>	moist/mesic woods
Sun	
Robins Plantain <i>Erigeron pulchellus</i>	xeric/slopes
Hayscented Fern <i>Dennstaedtia punctilobula</i>	moist/mesic
Sensitive Fern <i>Onoclea sensibilis</i>	moist/mesic

Table 1. Herbaceous Plant List



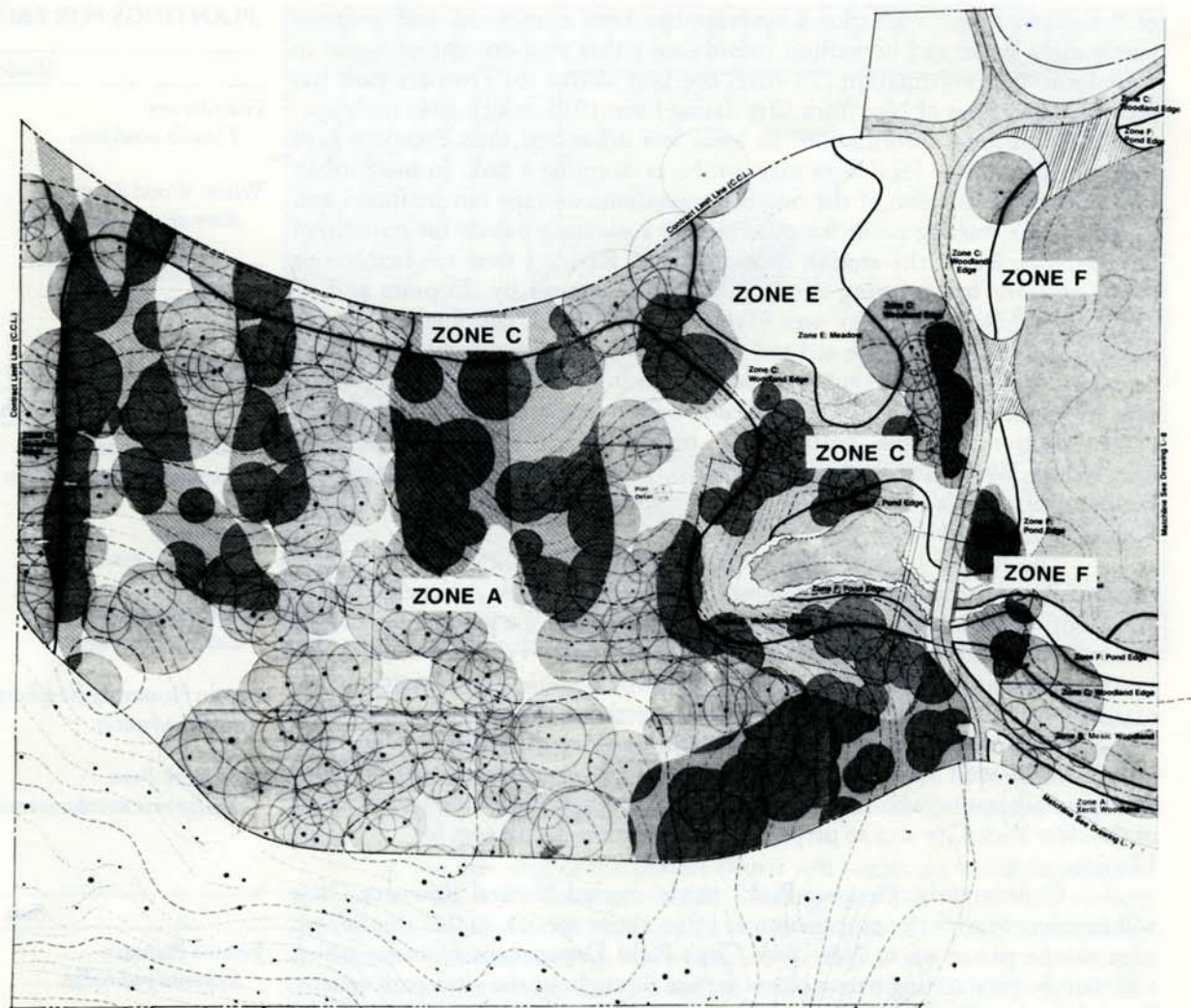


Fig. 9 Planting scheme, Ravine I project. Shaded areas show eroded sites; white areas (outside of Meadows and Old Fields) show light gaps.

Walmsley & Company, Inc.

#### LEGEND

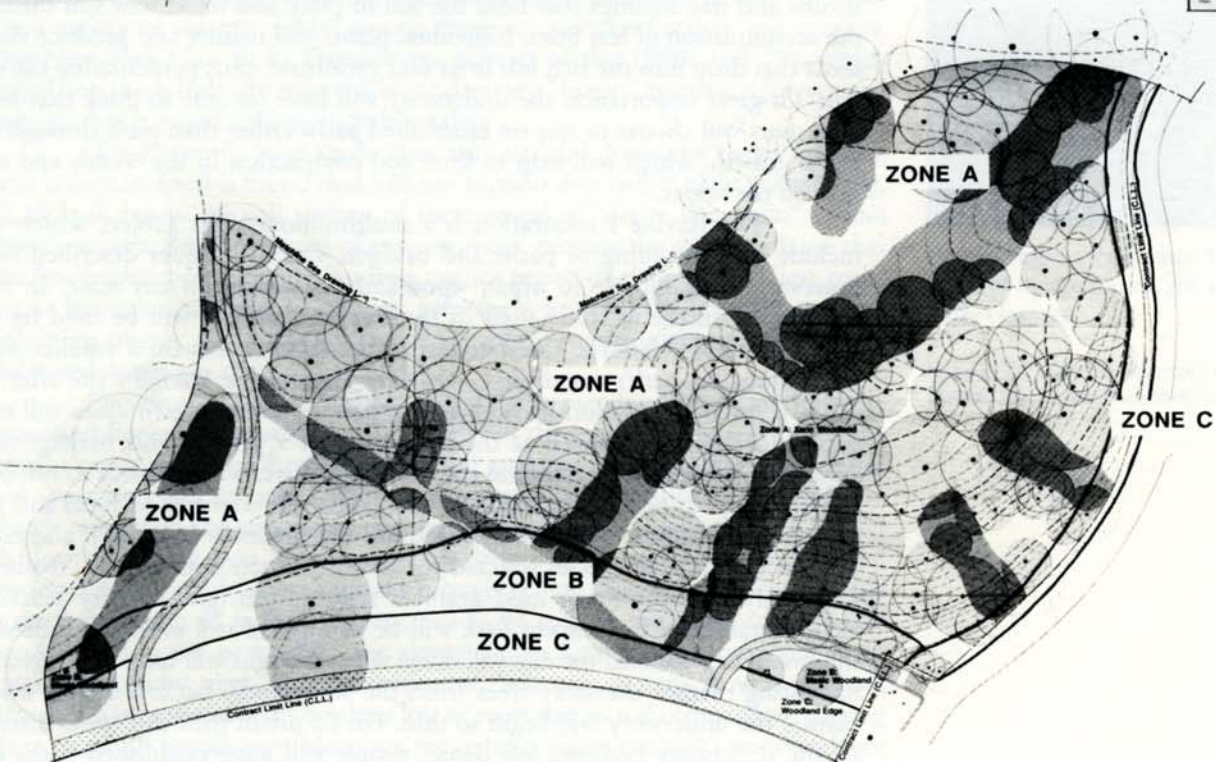
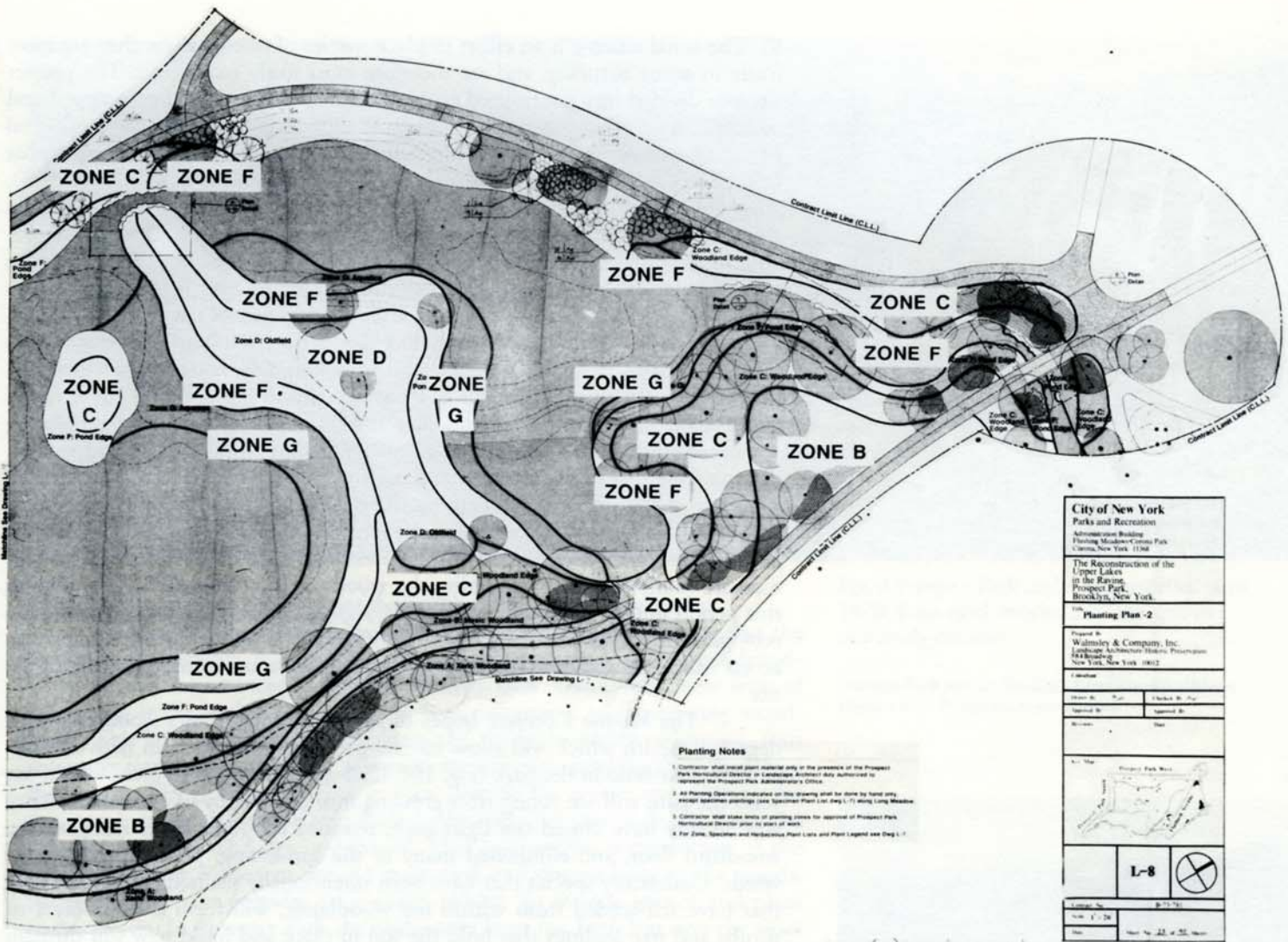
- Zone A Xeric Woodland
- Zone B Mesic Woodland
- Zone C Woodland Edge
- Zone D Old Field
- Zone E Meadow
- Zone F Pond Edge
- Zone G Aquatic

of the woodlands (including areas cleared of invasives) will be planted on a ten-foot grid with native overstory tree species. For ease of planting and to minimize cost three-year-old nursery stock will be used. Trees will be container-grown rather than bare-root or balled and burlapped to ensure a greater root mass and a higher success rate. When planted at a ten-foot grid density, the trees on average will take ten years to close the canopy. As a result, light levels on the woodland floor will be lowered to the level typically found in a woodland setting, making the woodlands amenable to native species and inhospitable to many invasive weeds. Trees were selected to best approximate the original vegetational coverage, both in species makeup and in percent species composition. About fifteen species of overstory trees were selected for this phase of the restoration and will be planted in percentages typically recorded for the oak-hickory forests that once covered western Long Island.

At the same time the light gaps are planted with overstory trees, areas of the woodlands with existing canopy coverage will be planted with an array of understory tree and shrub species. The plants used will represent typical components of the original understory vegetational coverage. With time, these plantings will move out into the light gap areas, as light levels decrease and woodland interior conditions start to take hold.

The last feature of the planting scheme for the Ravine I project departs dramatically from a typical landscape restoration project. Instead of producing traditional planting plans which show the location of every proposed plant, the project documents consist of ecological zoning maps and planting menus (Fig.







9). The zonal scheme is an effort to place species of plants where they are most likely to occur naturally, and are therefore most likely to succeed. The project site was divided into generalized ecological zones which were then mapped and matched to an appropriate menu of plants suited for each particular ecological zone. The planting menus developed for each zone reflect the differences (sometimes subtle) in species composition from zone to zone (Tables 2 & 3). They also reflect differences in habitats observed in the field and incorporate (as could best be determined) the percent composition each species would represent within a given zone. The planting list created for Prospect Park cannot be applied generally, rather each park site will require the investigation and development of a specific list. Significantly, the project does not have a planting plan that shows exactly where to place each plant. Since the plantings are meant to mimic natural systems, there will be no formal arrangement of plants for aesthetic or practical reasons except in a few designated horticultural zones where heavy usage or historic design intent warrants a higher maintenance planting scheme. Rather, plants within a zone will be planted on a regular grid system, the numbers of each species determined by their percent composition in the zone, and their order of placement based on a random selection process. Finally, the security fence that will surround the entire Ravine I construction site will be left in place for a period of ten years, allowing the regenerative processes to gain a secure foothold before reopening the woods to intensive public use. During this period guided tours and interpretive signage will inform the public of the ecological processes underway. To accommodate the public during this period, access will be provided by fenced paths to two important cultural features of the site.

The Ravine I project hopes to return Prospect Park's woodlands to a degree of health which will allow natural processes that occur in native woodlands to take hold in the park (Fig. 10). If all goes according to plan, within ten years the park will see young trees growing into the canopy of the woods. They will already have closed the light gaps, reduced the light levels reaching the woodland floor, and eliminated many of the sun-loving, pre-existing invasive weeds. Understory species that have been intentionally planted, as well as those that have self-seeded from within the woodlands, will form a dense layer of shrubs and tree saplings that hold the soil in place and build new soil through the accumulation of leaf litter. Individual plants will mature and produce viable seeds that drop into the rich leaf litter and germinate, thus perpetuating the system. Of great importance, the understory will have become so thick that most park users will choose to stay on established paths rather than push through the dense growth, which will help to limit soil compaction in the woods and erosion on the slopes.

The Ravine I restoration is a multimillion-dollar project which will include the rebuilding of paths and bridges. The techniques described here, however, are applicable to urban woodland restoration on any scale. In fact, techniques similar to those used in the Ravine I project will be used by the park's Natural Resource Crew to carry out restorations on a smaller scale throughout the park's woodlands, as well as care for the Ravine I site after the active phase of restoration is completed. These restoration techniques will only succeed if they are viewed as the beginning of a process and management approach that will be carried into the future. Invasives will continue to reappear and will have to be eradicated; desire line paths will continue to form and will have to be controlled before they reactivate the processes of erosion and compaction; and not all species selected for use in projects will succeed, requiring new analysis before being used again or rejected outright. In fifty years the woods established in Prospect Park will be young and still evolving. Indeed, if the woodlands succeed the day will come when thought will have to be given to harvesting mature overstory trees from the woodlands, because as the woods mature the understory will begin to thin. For an urban park this spells disaster. As the understory becomes less dense, people will leave established paths and



make their way through the woods. To prevent this, the early stages of forest succession must be perpetuated by thinning overstory trees, which will ensure young, vigorous growth in the understory layer.

### ECOLOGICAL RESTORATION AND HISTORIC PARKS

Since Prospect Park is a treasured, landmarked park, will an ecological restoration of the woodlands compromise the original design intent? In most instances, these management techniques can be used to maintain historic landscapes. In fact, the Ravine I project seeks to hold together the most essential element of the park's landscape, the soil itself. Obviously, the modern science of ecology was not available to Olmsted and Vaux in 1866. Most of their attention to Prospect Park's woodlands centered on presenting a heightened sense of nature to park users. To this end they built waterfalls, steepened slopes, created fast moving streams, and laid out vistas for picturesque effects. As such, all of Prospect Park, including its wooded areas, is a highly designed space. Some aspects of Olmsted and Vaux's design have not withstood the passage of time. Specifically, many of the park's slopes are so artificially steep that they are constantly eroding. This is particularly true around Prospect Park's bridges and tunnels, as well as in its woodland areas. Short of altering the original design, cloaking the slopes in thick understory vegetation offers the best solution for holding them in place.

There is nothing about ecological restoration that precludes respecting an historic design, now or in the future. For example, there are several important vista points within the area of the Ravine I project that were part of Olmsted and Vaux's original design. If the resources are available, the vistas will be opened as part of the restoration. If this proves financially unfeasible, the possibility still exists to open the vistas at a later date. In the meantime, the responsible action to take is to see to the continued health and integrity of the site. In several instances, once opened, the vistas in the Ravine will only entail careful pruning every few years that provides for sightlines but does not open the overstory. The cost of maintaining the sightlines will be slight compared to that of other historic features of the park's landscape.

The natural resource techniques described here for the restoration of Prospect Park's woods are site-specific and as yet untested. The general principals, however, are broadly applicable to urban park woodlands. They have been successfully applied in other disciplines, such as forest management, and will evolve as they are employed in Prospect Park. Working with, rather than against, processes that occur in nature will allow park managers to restore and maintain woodlands with less manpower, materials, and money than are required by horticultural and turf systems.

Ecological restoration offers park users a unique assemblage of plants that evolved over millions of years on a specific site. It preserves the ecosystem's genetic diversity and the natural heritage that gives each park its special character. Woodlands are an invaluable resource and an important part of our heritage, and they merit increased attention to their health and survival. The principals of ecological restoration offer the best hope of meeting that responsibility.



Fig. 10 Young healthy woodlands (Staten Island, New York) are envisioned for the Ravine I project.

C.T. Wemple



# PLANTINGS BENEATH EXISTING TREE CANOPY

Zone A Xeric Woodland	Zone B Mesic Woodland	Zone F Pond Edge
Trees	Trees	Trees
<i>Amelanchier canadensis</i> Shadbush	<i>Acer saccharum</i> Sugar Maple	<i>Amelanchier canadensis</i> Shadbush
<i>Amelanchier laevis</i> Shadbush	<i>Amelanchier canadensis</i> Shadbush	<i>Amelanchier laevis</i> Shadbush
<i>Cornus florida</i> Flowering Dogwood	<i>Amelanchier laevis</i> Shadbush	<i>Carpinus caroliniana</i> Ironwood
<i>Ostrya virginiana</i> Hop Hornbeam	<i>Carpinus caroliniana</i> Ironwood	
<i>Tsuga canadensis</i> Eastern Hemlock	<i>Cornus florida</i> Flowering Dogwood	
	<i>Diospyros virginiana</i> Persimmon	
	<i>Fagus grandifolia</i> American Beech	
	<i>Ostrya virginiana</i> Hop Hornbeam	
	<i>Tsuga canadensis</i> Eastern Hemlock	
Shrubs	Shrubs	Shrubs
<i>Corylus americana</i> Hazelnut	<i>Aronia melanocarpa</i> Black Chokeberry	<i>Aronia arbutifolia</i> Red Chokeberry
<i>Gaylussacia bacata</i> Black Huckleberry	<i>Corylus americana</i> Hazelnut	<i>Cephalanthus occidentalis</i> Buttonbush
<i>Hamamelis virginiana</i> Witch Hazel	<i>Lindera benzoin</i> Spicebush	<i>Clethra alnifolia</i> Sweet Pepperbush
<i>Kalmia latifolia</i> Mountain Laurel	<i>Gaylussacia frondosa</i> Dangleberry	<i>Cornus racemosa</i> Gray Dogwood
<i>Rhododendron nudiflorum</i> Pinxster Azalea	<i>Kalmia latifolia</i> Mountain Laurel	<i>Ilex verticillata</i> Winterberry
<i>Vaccinium stamineum</i> Deerberry	<i>Rhododendron maximum</i> Rosebay	<i>Kalmia angustifolia</i> Sheep Laurel
<i>Vaccinium vacillans</i> Late Low Blueberry	<i>Viburnum acerifolium</i> Mapleleaf Viburnum	<i>Lyonia ligustrina</i> Maleberry
<i>Viburnum acerifolium</i> Mapleleaf Viburnum	<i>Viburnum dentatum</i> Arrowwood	<i>Rhododendron viscosum</i> Swamp Azalea
<i>Viburnum lentago</i> Nannyberry		<i>Rosa palustris</i> Swamp Rose
<i>Viburnum dentatum</i> Arrowwood		<i>Sambucus canadensis</i> Elderberry
		<i>Spirea tomentosa</i> Hardhack
		<i>Vaccinium corymbosum</i> Highbush Blueberry

Table 2. Zone Plant List  
See maps pp. 8 & 9

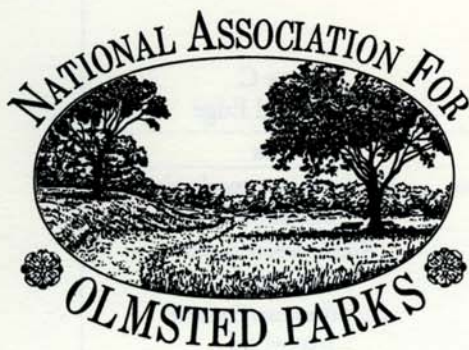


# PLANTINGS AT EXISTING LIGHT GAPS

Zone A Xeric Woodland	Zone B Mesic Woodland	Zone F Pond Edge	Zone C Woodland Edge
Trees	Trees	Trees	Trees
<i>Acer saccharum</i> Sugar Maple	<i>Acer saccharum</i> Sugar Maple	<i>Amelanchier canadensis</i> Shadbush	<i>Amelanchier canadensis</i> Shadbush
<i>Betula lenta</i> Sweet Birch	<i>Betula lenta</i> Sweet Birch	<i>Amelanchier laevis</i> Shadbush	<i>Amelanchier laevis</i> Shadbush
<i>Carya cordiformis</i> Bitternut Hickory	<i>Carya cordiformis</i> Bitternut Hickory	<i>Betula nigra</i> River Birch	<i>Carpinus caroliniana</i> Ironwood
<i>Carya glabra</i> Pignut Hickory	<i>Celtis occidentalis</i> Hackberry	<i>Carpinus caroliniana</i> Ironwood	<i>Cornus florida</i> Flowering Dogwood
<i>Carya tomentosa</i> Mockernut Hickory	<i>Fagus grandifolia</i> American Beech	<i>Liriodendron tulipifera</i> Tulip-tree	<i>Ostrya virginiana</i> Hop Hornbeam
<i>Celtis occidentalis</i> Hackberry	<i>Liquidambar styraciflua</i> Sweet Gum	<i>Magnolia virginiana</i> Sweet Bay	<i>Tsuga canadensis</i> Eastern Hemlock
<i>Fagus grandifolia</i> American Beech	<i>Liriodendron tulipifera</i> Tulip-tree	<i>Pinus strobus</i> White Pine	
<i>Pinus strobus</i> White Pine	<i>Pinus strobus</i> White Pine		
<i>Quercus rubra</i> Red Oak	<i>Quercus alba</i> White Oak		
<i>Sassafras albidum</i> Sassafras	<i>Quercus coccinea</i> Scarlet Oak		
<i>Tilia americana</i> Basswood	<i>Sassafras albidum</i> Sassafras		
<i>Tsuga canadensis</i> Eastern Hemlock	<i>Tilia americana</i> Basswood		
	<i>Tsuga canadensis</i> Eastern Hemlock		
Shrubs	Shrubs	Shrubs	Shrubs
<i>Gaylussacia bacata</i> Black Huckleberry			<i>Aronia arbutifolia</i> Red Chokeberry
<i>Rosa carolina</i> Carolina Rose			<i>Ceanothus americanus</i> New Jersey Tea
<i>Kalmia angustifolia</i> Sheep Laurel			<i>Cornus racemosa</i> Gray dogwood
			<i>Corylus americana</i> Hazelnut
			<i>Rhus glabra</i> Smooth Sumac
			<i>Rubus odoratus</i> Purple Flowering Raspberry
			<i>Sambucus canadensis</i> Elderberry
			<i>Spirea latifolia</i> Meadowsweet
			<i>Vaccinium vacillans</i> Late Low Blueberry
			<i>Viburnum lentago</i> Nannyberry
			<i>Viburnum prunifolium</i> Blackhaw Viburnum

Table 3. Zone Plant List  
See maps pp. 8 & 9





Founded in 1980, the National Association for Olmsted Parks (NAOP) is a national network of volunteers and professionals, working to promote and protect the Olmsted legacy. NAOP is a non-profit membership organization.

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NATIONAL ASSOCIATION FOR OL MSTED PARKS  
*WORKBOOK* Series, Volume 3  
TECHNICAL NOTES



LANDSCAPE  
COMPOSITION  
PRESERVATION  
TREATMENT

Defining an Ethic for  
Designed Landscapes

by Charles A. Birnbaum, ASLA



## FOREWORD

by Nicholas Quennell, ASLA, Co-Chair, National Association for Olmsted Parks

When the National Association for Olmsted Parks (NAOP) embarked upon the *Workbook Series* three years ago, we recognized the need for a dialogue on the challenging—and often troubling—task of renewing vegetation in America's historic parks.

Ten years of effort in all parts of the country have seen many different approaches, as well as areas for potential conflict, among those responsible for the restoration of urban landscapes.

In an attempt to bring forth these differing approaches and allow for dialogue and debate, NAOP hosted a conference in the fall of 1991 on "Restoring Urban Woodlands." The conference was a great success and left its participants with a better understanding of the many problems encountered by park restorers. At the same time there was inevitably some confusion about the "right" way to go about a park restoration project.

Two very different and potentially irreconcilable points of view emerged.

One, based upon a twentieth-century understanding of ecological processes, espoused a re-examination of planting plans to ensure a self-sustaining complex of trees, shrubs and groundcovers which could co-exist comfortably and (ultimately) with minimum intervention. Such a planting scheme would consist primarily of plants native to the area which, in their natural state, would reach an ecological equilibrium very different from the condition found in so many urban parks today that are overrun with invasive, exotic varieties.

The second point of view placed primary concern on the original design intention of the park's designers and argued for a re-establishment, wherever possible, of those intentions using the same plants contained in the park's original installation.

Rather than attempt to summarize the many fascinating presentations made at the conference, we decided to invite two distinguished professionals to address these two positions from their own perspectives. Ed Toth, Director of Landscape Management for Prospect Park, Brooklyn, New York and a horticulturist with a thorough knowledge of urban forestry and the aesthetic concerns of Olmsted, Vaux and their successors, makes a case for the ecological approach in Volume 2 of the *Workbook, An Ecosystem Approach to Woodland Management*.

In this publication, Volume 3, *Landscape Composition Preservation Treatment: Defining a Methodology for Designed Landscapes*, Charles Birnbaum presents the case (and a detailed methodology) for examining, analyzing and—within reason—restoring historic landscapes. Charles Birnbaum has broad experience in dealing with historic landscapes. From his early work on Boston's Emerald Necklace (Walmsley & Company), recent work with Patricia M. O'Donnell (LANDSCAPES) in Newburgh, New York and Hartford, Connecticut, to his current position as historical landscape architect with the National Park Service Preservation Assistance Division in Washington, D.C., he has been dedicated to historic landscape preservation.

As it turns out, these two volumes of the *Workbook* do not reflect a schism between the two positions they represent. Each recognizes the importance of the other and it is clear that we should explore both positions as we work to preserve our Olmsted heritage. We welcome further discussion on the subject, and hope that future editions of the *Workbook* will tell more of the story.

## ABOUT THE AUTHOR

Charles A. Birnbaum, ASLA, is the historical landscape architect for the National Park Service Preservation Assistance Division. He also serves as the Chair of the American Society of Landscape Architects Historic Preservation Open Committee.

The author wishes to thank Patricia M. O'Donnell, ASLA, of LANDSCAPES, colleague and friend.

Cover: Polly Pond, A.J. Downing Memorial Park, Newburgh NY, ca. 1940s. Louis McTammeney, photographer.

Downing Park Planning Commission

## NAOP WORKBOOK

This publication has been made possible by the generous support of the Andy Warhol Foundation for the Visual Arts, Inc.

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Bethesda, MD, 1992

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# NATIONAL ASSOCIATION FOR OLMSTED PARKS

# WORKBOOK

Series, Volume 3  
TECHNICAL NOTES

## LANDSCAPE COMPOSITION PRESERVATION TREATMENT: Defining a Methodology for Designed Landscapes

by Charles Birnbaum, ASLA

It is quite impossible to plant a large extensive park so that it can present the same picture when full grown as it did at the beginning, only on an altered scale, and the objects in it are for ever after in the right relation to one another, since nature cannot be calculated so accurately and it would also take too much time.<sup>1</sup>

Across the United States, cities like New York, Boston, Hartford, Louisville, Seattle, Chicago, Denver and Baltimore are rediscovering and renewing their historic parks and parks systems. Often encompassing a comprehensive network of parks and boulevards, these systems were largely conceived and, in most cases, executed by Olmsted Vaux & Co. and the later Olmsted firm. In many cities the Olmsted firm was the initial consulting landscape architect and remained intermittently involved into the 1940s.

Unfortunately, during the period between World War II and the late 1970s many of these great public landscapes suffered from benign neglect. It was not until the last ten to fifteen years that their significance was recognized and preservation master plans developed to ensure their survival, in many cases on the eve of their centennials.

### PLANT MATERIALS AND THE PRESERVATION PLANNING PROCESS

The master planning process first selects an appropriate treatment. Appropriate options include: protection and stabilization, preservation, rehabilitation, restoration, and, in rare cases, reconstruction (Table 1). These treatments are described in detail in the National Park Service publication *Guidelines for the Treatment of Historic Landscapes*.

The selection of a treatment for the landscape determines the type and scope of work for each project, i.e., the extent of repair and replacement to historic features and materials. The type and scope of work, in turn, determine how the entire property will exist in time in relationship to the user, viewer or visitor. Decisions made at this step will determine how the history of the property will be perceived. Although the treatments are interrelated, usually one *primary* treatment is selected for a property.<sup>2</sup>

The *Guidelines* also describe individual contributing landscape features, such as vegetation. Vegetation, a character-defining feature present in most Olmsted parks, is defined as follows:

An individual plant, as in the case of a specimen oak tree, or groups of plants such as a hedge, allee, forest, agricultural field, or planting bed. Vegetation may be evergreen or deciduous trees, shrubs, or ground covers, and include both woody and herbaceous plants. Vegetation may derive its significance from historical associations, horticultural or genetic value, or aesthetic or functional values. It is the primary component of the constantly changing character of the

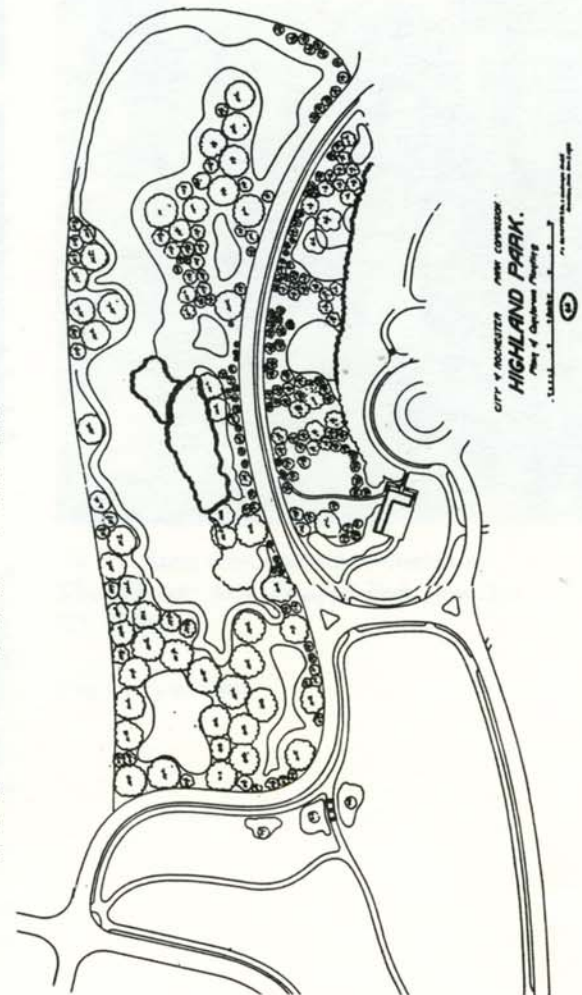
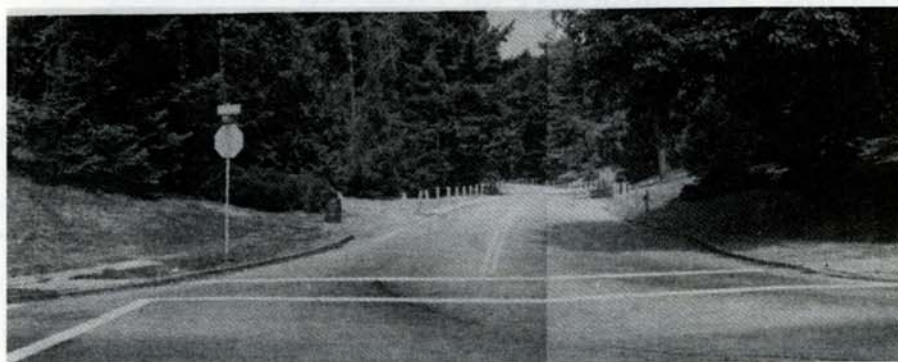




Fig. 2: Historic and contemporary views of Pinetum Drive, Highland Park, Rochester NY.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts

#### LANDSCAPES



landscape. The treatment of historic landscapes must recognize this continual process of growth, seasonal change, maturity, decay, death, and replacement of vegetation. Vegetation derives its character from form, color, texture, bloom, fragrance, and scale.<sup>3</sup>

This workbook describes an appropriate process in selecting a treatment option in a preservation planting plan. It will review the types of documentary information that may be available, how to use these sources, and discuss contemporary issues which must be considered. The six steps listed below will be applied and tested in two case studies, Meadowport Arch in Prospect Park, Brooklyn, New York, and the Polly Pond in Downing Park, Newburgh, New York.

- Review of historic record documentation of plant materials
- Documentation of existing plant materials
- Assessment and analysis of extant historic plant materials (including condition assessment)
- Determination of appropriate preservation treatment
- Creation of a preservation planting plan and plant list
- Location and installation of new plant materials.

### REVIEW OF HISTORIC RECORD DOCUMENTATION

Developing a preservation planting plan requires consulting historic plant material documentation. This documentation enables the historian and landscape architect to assess and analyze extant historic plant materials; determine what was actually executed of the planting design by the Olmsted office; or lacking this primary documentation, what was appropriate for the period in the specific geographic location. Resources can include surveys, schematic or technical plans, photographs, stereoscopic views, postcards, and related correspondence. For example, a section of the planting plan of the park's Pinetum Drive (Fig. 1), and photographs depict the area as it looked in the early 1920s (Fig. 2). The documentation for Highland Park is located at the Frederick Law Olmsted National Historic Site (FLOHNS) in Brookline, Massachusetts.

The collection at FLOHNS contains over one million pieces of paper, includ-



ing approximately 150,000 drawings. Related correspondence at the Library of Congress, Washington, D.C. contains approximately 240,000 items (including 27,000 attributed to F.L. Olmsted Sr., and 170,000 to Olmsted Associates). These resources offer historians and landscape architects important information about a park's schematic design, planting plan, plant list, and installation, and enables them to make responsible treatment decisions.

### *The Schematic or Conceptual Plan*

Often the first design produced by the Olmsted firm was a conceptual or schematic plan for the entire park. Careful review of the plan will reveal the character of different areas of the landscape, including woodland, parkland (broad areas of lawn with informal trees), meadow, or formal features such as boulevards and allees. However, the schematic plan has limitations. In most cases, if the plan shows a proposed shrub massing, it is difficult to determine which plantings were already in place and which were proposed. It is also difficult to tell if an understory is present in woodland or plantation areas. Moreover, schematic plans usually omit plant names, rarely differentiate between deciduous, coniferous or flowering trees, and have limited or no plant material information. A preliminary plan by Olmsted, Olmsted & Eliot for laying out buildings and grounds of the American University, Washington, D.C. (1895) reveals the limitations of a schematic plan (Fig. 3). Formal perimeter trees, woodland, parkland, and informal tree groupings are all discernible; however, understory and existing vegetation are not.

### *Existing Conditions Survey*

For many Olmsted projects an existing conditions survey exists. The survey may have been produced by the Olmsted firm or, on many occasions, by a local group. Many of these plans can be found in the project files at FLONHS, and may even include field annotations by the Olmsted firm. For example, the plan for South Green in Hartford (today known as Barnard Park), includes colored pencil annotations regarding tree genus, size, suggestions for removals, and new configurations for pedestrian walks and perimeter fencing.<sup>4</sup> Survey documentation is usually extremely accurate and can prove invaluable in understanding a landscape that has undergone many replanting schemes throughout its history.

### *Planting Plan and Plant List*

The Olmsted office prepared detailed planting plans for many of its park designs. The plans were usually drawn at a large scale, and many include plant material information ranging from pre-existing plants to details such as ground covers or aquatic plants. For example, the planting plan for the Brookline side of the Emerald Necklace's Muddy River (1892), measures over eleven feet in length, and indicates all trees and understory plant materials. The plan uses individual circles with interior numbers to represent trees, while numbered clusters indicate groupings of shrubs and groundcovers. In some cases, plant materials are categorized by grouped masses. In the plan for Leverett Pond, a single number represents a vast collection of trees, shrubs, and ground covers. Although useful, this approach has limitations. For example, what is the actual density of a given plant or how are the plant materials grouped (e.g., are the tallest plants in the middle, or along an interior edge)?

Plant lists, accompanying the planting plan, are either integral to the drawing or, if lengthy, may be documented separately on firm letterhead. Plant order lists were prepared by the Olmsted firm for a commercial grower or park nursery and represent a relatively accurate record of what was purchased, often including specifics, such as quantity, size, form, cost and place of purchase. An example found at FLONHS is the plant order form for Newburgh's Downing Park, dated October 29, 1894, with plants scheduled to arrive on April 20, 1895. This list, unlike the plant lists that appear on associated park planting plans, shows the actual plants ordered.

In the cases where nurseries existed on site (the nursery in Prospect Park had 50,000 plants in 1868), logs or journals can be studied to understand what plants were grown, and which were successful.

## LANDSCAPE TREATMENTS

### Protection and Stabilization

Provide temporary, often emergency measures to prevent deterioration or failure without altering the landscape's historic character. These measures are generally considered preparatory to the other treatments.

### Preservation

Maintains the form, materials, and features of the landscape as it has evolved over time, acknowledging its growth, loss, and change.

### Rehabilitation

Retains the landscape as it has evolved historically by maintaining and repairing historic features, while allowing additions and alterations for contemporary and future uses.

### Restoration

Depicts an appearance that existed during the landscape's most significant period by removing later additions, and rebuilding or replanting earlier features.

### Reconstruction

Re-creates a vanished or non-surviving landscape with new materials.

Table 1. Appropriate Treatment Options.

Secretary of the Interior's Standards for Historic Preservation Projects



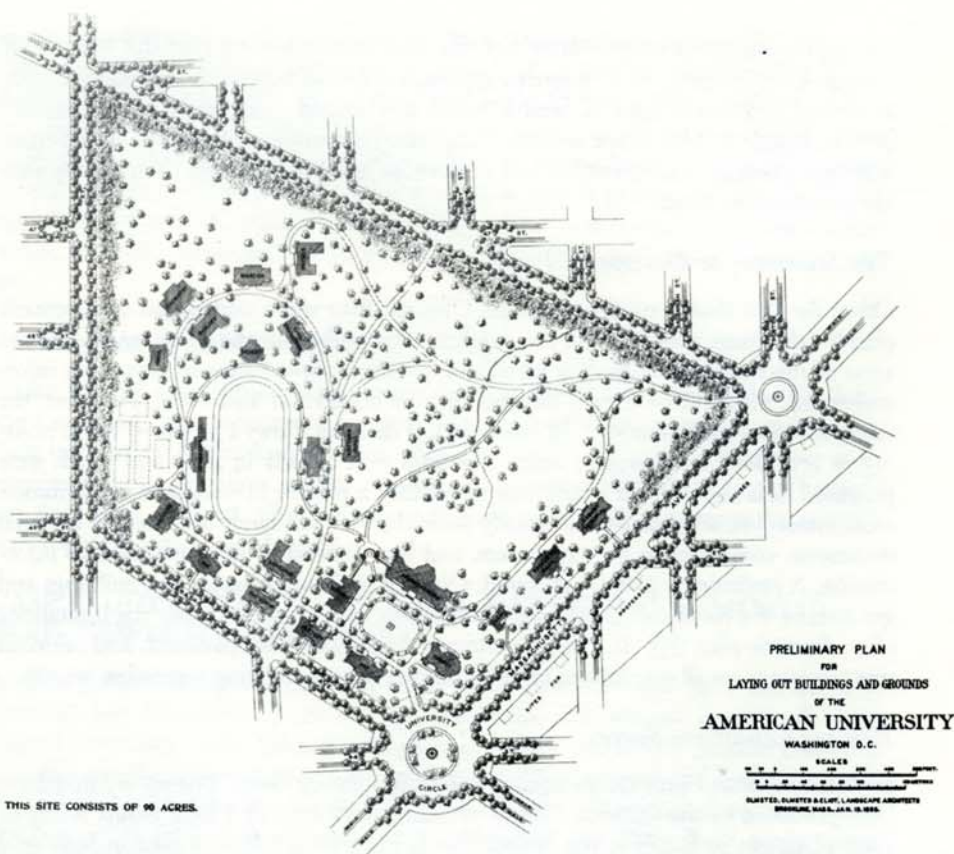
Fig. 3: Preliminary Plan for Laying Out Buildings and Grounds of the American University, Washington D.C., Olmsted, Olmsted & Eliot, January 19, 1895.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts



Fig. 4: Stereoscopic view of the "Floral Daily Calendar" in Chicago's South Park.

Charles Birnbaum



### *Park Department Annual Reports*

Park annual reports can be a good source for detailed plant material information. They often contain information regarding genus, species, quantity, cost and installation (e.g., soil mixture, staking). The annual reports prepared between 1890 and 1910 for park systems in New York City and Hartford detail specific quantities, genus, species, and park by park plant lists for the entire city.<sup>5</sup>

Parks Department annual reports may also offer excellent visual documentation, especially of new construction projects. By comparing reports over several years it is possible to understand the park's maintenance requirements, including both installation and seasonal upkeep variations.

### *Historic Photographs and Postcard Views*

Early photographs, postcards, and stereoscopic views are extremely useful for determining what plant materials existed prior to a park's construction. In some cases, photographs and postcard views are the only available documentation for identifying plants by genus (and if the views are very clear, by species). Photo sources include the extensive photographic collections at FLONHS; the George Eastman House International Museum of Photography in Rochester, New York, which has over 40,000 stereographs and 1,000 photographs of western landscapes; and the Curt Teich Company postcard collection at the Lake County Museum in Wanconda, Illinois, which contains over one million postcards dating from 1898 to 1975.<sup>6</sup>

Historic photographs often illustrate gardenesque and ornamental plantings added after the park's original construction. In many cases these may have replaced original park plantings and should be verified against primary source information. For example, a stereoscopic view of Chicago's Washington Park (Fig. 4), illustrates a Victorian embellishment, which departs from the original planting scheme. It should be remembered that photographs document a limited portion of the growing season. A bed with tulips in May or June will look very different in August, when it may contain a seasonal mixture of annual or perennial bedding plants. A preservation planting plan and plant list should consider these seasonal planting variations. Finally, when using



postcard views as historic documentation, note that early postcards were hand tinted, often with great artistic license, and as a result they may be misleading.

### Period Nursery Catalogs

When historic planting plans cannot be located, or when photographic records are insufficient to identify plant material or only illustrate a limited portion of the park landscape, secondary sources should be consulted. Nursery catalogs of local suppliers dating from the period of a park's construction provide excellent supplementary information about locally grown plant materials. The Massachusetts Horticultural Society in Boston and the Office of Horticulture at the Smithsonian Institution Libraries in Washington, D.C. have thousands of period plant material catalogs that are outstanding supplementary resources (Fig. 5). Although the species and cultivars that are available today may differ slightly from those used by the Olmsted firm, organizations such as the Thomas Jefferson Center for Historic Plants in Charlottesville, Virginia and the Antique Plant Newsletter in Dover, Delaware have made it easier to locate historically appropriate plant materials.

Many nursery catalogs are richly illustrated with engravings, and later, with photographs. When comparing historic photographs of the park landscape with the illustrations found in period nursery catalogs, it may be possible to identify original plant materials.

### Journals and Newspaper Accounts

Periodicals such as newspapers, magazines and professional journals contain many articles on Olmsted landscapes. Publications worth consulting include: *Garden & Forest* (1888–1897), *Park & Cemetery* (1891–95), *Landscape Architecture Magazine* (1910–present), and *House and Garden* (1901–present), among others. The information contained in these journals ranges from detailed descriptions of new parks, to essays written by park managers with an emphasis on maintenance. Often detailed plans, plant lists, and original plantings are described in these publications.

Local newspapers are also valuable and often offer articles with photographs about opening day festivities or special events in parks. They are also useful in understanding change over time, especially later additions or removals that effect the park's vegetation.

Late nineteenth and early twentieth century popular magazines such as *The Century*, *Harper's*, *Fortune*, and *The Saturday Evening Post* often contain illustrated essays on public parks. The articles frequently include detailed engravings. An example (Fig. 6), depicts Canal Street Park in New York City.<sup>7</sup>

## CONTEMPORARY ISSUES TO CONSIDER

Once the executed park plan is understood, the historic landscape architect must consider several contemporary issues. The goal of the preservation planting plan is to retain the extant historic plant materials, reflecting the original plan to the greatest extent possible. Contemporary issues such as use, interpretation, maintenance and management, fiscal responsibility, ecological value, plant material availability and appropriateness can then be addressed to “make an efficient contemporary use possible” and still maintain the park's historic character. The construction of design features that were not built as a part of the original design is never considered an appropriate preservation treatment.<sup>8</sup>

Most Olmsted office planting plans for park landscapes used dense collections of trees with understory masses of shrubs and groundcovers along a park's perimeter or along the edges of naturalistic water features. The plantings created picturesque edges, controlled views in and out of the landscape along the perimeter, and controlled access to the water, creating “beach” locations in the open spaces between masses. Originally known as “plantations” the groupings were usually composed of young trees, shrubs and ground covers that were extremely densely planted, well maintained, and thinned frequently.<sup>9</sup>

When rehabilitating an Olmsted park's landscape composition today, it is the “plantations” portion of the plant palette that has changed most considerably, and offers



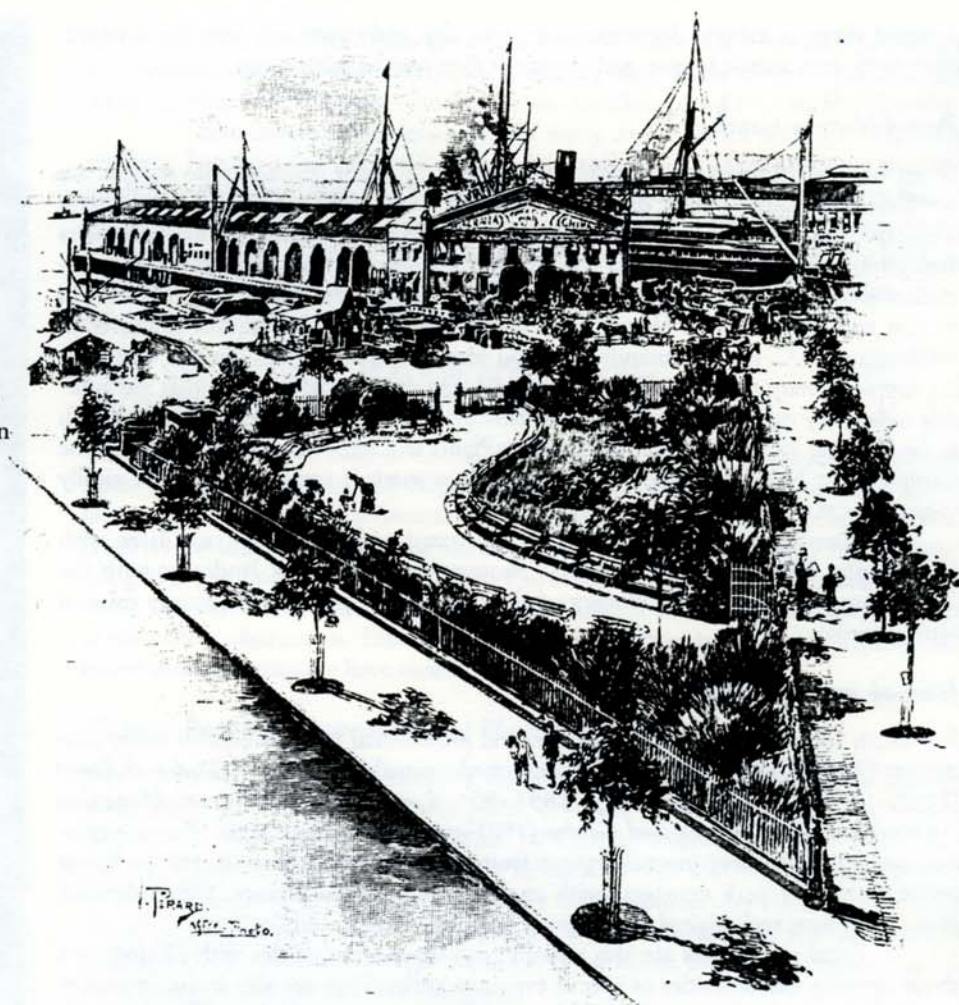
Fig. 5: Buist's Garden Guide and Almanac, 1896 (Philadelphia PA) is one of the hundreds of nursery catalogs at the Smithsonian. Horticultural Services Division, Office of Plant Services.

Smithsonian Institution



Fig. 6: Engraving of Canal Street Park, New York NY, by V. Perard from "The Evolution of A City Square."

*Scribner's Magazine*, V. XII No. 1, July 1892.



the greatest challenge to the historian and landscape architect. Common issues include the following:

- What exists of the historic "plantations" today usually consists of mature trees in decline with little or no understory remaining. In these situations, large canopy trees are of a much greater scale, may "dwarf" young tree plantings in proximity, and may never recapture the original design intent. The health and vigor of understory plant materials within the mature tree canopy are threatened, with new understory plantings located within the tree "dripline" competing for the same water. Neither the mature nor the younger planting usually benefits in such situations.

- Issues of appropriate scale also arise regarding formal plantings such as tree allees. Allees were quite common along park perimeters at the city's edge, along major interior park drives, and at times were associated with park-interior formal garden features. Hartford's Pope Park General Plan by the Olmsted Brothers, 1898, includes all three types of allees: formal tree surrounds along the park perimeter, an allee along Park Street which bisects the park, and a third allee around the sunken panel flower garden at the park's highest point. Today, where there are significant gaps in the formal tree canopy, a determination should be made whether to (1) fill these in with new trees or (2) replace full linear sections of the formal allee to achieve a uniform height and the intent of the executed design. The recommended solution can be either, or a combination of both, depending on (1) the percent of tree canopy that remains or (2) length of the allee.

- When an entire tree population (e.g., Dutch Elms or more recently, sycamores, hemlocks or flowering dogwoods) has been the target of twentieth century disease or infestation, a species of a similar scale, form, and texture should be used as a replacement. In some cases genetic diversity provides another approach. For example, in the late 1970s, the city of Buffalo reinstated entire stretches of formal boulevard



plantings that were part of the original 1876 Olmsted, Vaux & Co. plan. The American Elm (*Ulmus americana*), originally used in the park, was almost eradicated by Dutch Elm disease (Fig. 7). The formal boulevard feature was replanted with the newly developed disease-resistant Liberty Elm, *Ulmus americana* 'Liberty' (Fig. 8). Other solutions include the use of Japanese Zelkova (*Zelkova serrata*) along sections of Boston's Commonwealth Avenue. Even though it does not achieve the same mature height as the Dutch Elm, the zelkova was selected as a suitable replacement because it possesses a similar vase-like form. Another approach has been taken along parts of the upper terrace of Riverside Drive in New York City where the tree canopy consisted largely of late nineteenth-century elms and London Planetrees planted in the 1930s. Gaps which had developed in the canopy were filled in with different genus trees, including more upright or fastigate-form oaks. This selection was made for the narrow openings in the overhead tree canopy, where only a limited amount of sunlight reaches the understory. In this situation, a fastigate growing tree may have a better chance of survival, but its shape is clearly different and may not always be appropriate.<sup>10</sup>

- Historically, to achieve an immediate effect, plant materials were planted extremely close together. This approach required substantial maintenance to assure the proper air circulation necessary to maintain healthy vegetation. Contemporary fiscal constraints render this approach impractical.

- Many of the original understory species have proven to be incompatible, competitive, or aggressive. Some invasive species, for example the River Birch (*Betula nigra*), were introduced by the Olmsted firm. Others have naturalized over time, including Phragmites (*Phragmites australis*), Common Buckthorn (*Rhamnus catharticus*), and Japanese Knotweed (*Polygonum cuspidatum*). The proliferation of invasive species results in parkland that is perceived as derelict. The goal of the preservation plan is to ultimately eliminate and control nuisance species.

- Some of the original plant materials specified may be difficult to locate commercially or may not be available today. Appropriate substitutes of similar scale, form, texture and color should be selected. A recent project for the reconstruction of Moore Road in Rochester's Seneca Park, for example, focused on the plantings associated with a historic roadway.<sup>11</sup> The Black Walnut (*Juglans nigra*) and American Hickory (*Carya ovata*) specified in the original plan for the park were impossible to locate, even among specialty growers. The Planetree (*Platanus acerifolia*) and Horse Chestnut (*Aesculus hippocastanum*) were chosen as the most appropriate substitutes, as they possessed similar scale, form and texture. Both species appeared on the plan and original plant lists and were located sympathetically.

Fortunately, in the past decade there has been a resurgence of interest in historic plant materials and commercial growers are again making them available. *The Anderson Horticultural Library Source List of Plants and Seeds* (Chanhasen, Minnesota) and the *Source List for Historic Seeds and Plants* (Ann Arbor, Michigan) are reliable sources for locating historic plant materials.

- Originally, plantings at the parks' perimeters were designed to "keep out the city." Today, however, perimeter plantings raise issues of perceived visitor safety. In the 1970s the approach was to remove the understory entirely, often leaving steep banks exposed and vulnerable to erosion and invasive perennial weeds. This dramatic change is illustrated in the Back Bay Fens, Boston (Figs. 9 & 10), which has experienced a dramatic loss in desirable species diversity and scenic composition. A better approach is to limit the heights of understory shrub materials. A reduction to a maximum of five feet to allow views in and out of the park was the solution arrived at by preservationists and park users in Downing Park, Newburgh, New York and Washington Park, Albany, New York, among others.

- Linear parks were designed as pleasure drives for slow-moving carriages that used perimeter parkways and interconnecting parkways or boulevards. Today, the automobile considerably alters the visitor's experience. Turning radii, parking, and viewing triangles have nibbled away at the edges of parkways and boulevards, thus removing formal tree elements, minimizing the depth of vegetative buffer, and threatening the stability of the slope. New vegetation proposals should recognize the altered view from the automobile and respond accordingly. Along Seattle's Lake Washington Boulevard, for example, sections of the thoroughfare in residential neighborhoods were rehabilitat-



Fig. 7: The Cycle Path in Delaware Park, Buffalo NY, is a typical example of the City's original boulevard plantings.

Rare Book Room, Buffalo & Erie County Public Library



Fig. 8: A section of replanted disease-resistant Elms in Buffalo NY, fifteen years later.

Charles Birnbaum





Fig. 9: View above Longwood Bridge, The Riverway, Boston MA, ca. 1920s.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts



Fig. 10: Same view 1988.

Marion Pressley

ed to “reinststate, frame and take advantage of views and vistas.”<sup>12</sup> Formal tree features were reinforced with new tree plantings, including integral low shrub and ground cover materials which were proposed for their scenic, stabilizing, and maintenance benefits.

These contemporary issues present many challenges for the historic landscape architect. In each situation, the issues of use, maintenance and management should be carefully considered. Both of the case studies that follow respond to varying levels of documentation, extant fabric, and contemporary influences. The approach in each example is somewhat different, however, like the *Guidelines for the Treatment of Historic Landscapes*, the purpose is to illustrate and inform wide treatment decisions, in this case for park vegetation.

### CASE STUDY ONE: MEADOWPORT ARCH PROSPECT PARK, BROOKLYN, NEW YORK

Designed by Olmsted Vaux & Co. in 1869, Prospect Park is a 580-acre scenic landmark which was listed on the National Register in 1980. Meadowport Arch and the landscape associated with it (measuring about one acre) are the focus of this case study (Figs. 11 & 12). The Arch is the northernmost entrance or “gateway” into the park’s Long Meadow from Grand Army Plaza. The design of the Arch is attributed to Calvert Vaux, and dates from the early 1870s, when Olmsted and Vaux were superintendents of the park’s construction. Throughout the history of Prospect Park, the plantings associated with this structure have varied considerably.

#### *Historic Record Documentation of Plant Materials*

The surviving nineteenth century documentation for Prospect Park includes “designed” and “as-built” schematic plans. Both the 1869 “design plan” by Olmsted Vaux & Co. and the 1888 “as-built plan” by Charles Woodruff are at 1" = 400' scale. The Meadowport Arch area, looks nearly identical in both schemes. This confirms that this section of the original design was largely constructed as conceived. The two plans are useful for defining meadow areas, and individual or formal tree features. However, in densely vegetated areas, such as woodland or parkland, understory materials are not easily differentiated, or identified by genus.

Twentieth-century documentation for the area is rich and varied. The earliest published plan with plant material information is found in Louis Harmon Peet’s *Trees and Shrubs of Prospect Park*, published in 1902. The thumbnail plan notes all major and minor trees, and sentinel or groups of shrubs in approximate locations. The drawing is keyed to an accompanying plant list. Unlike an actual survey, caliper size is not noted. From the same period there is also a 1909 survey.

A 1935 survey at 1" = 50' scale, the Department of Parks Topographical Map of Prospect Park, is an excellent source for identifying trees by common name, caliper, areas of woodland, young trees, and shrubs. A limited quantity of trees over 24" in caliper are present on either side of the Arch. On the north side this includes three 24" and two 42" elms. On the south, or interior side, a 38" linden, 36" sycamore, and 35" maple are noted. Broad areas labeled shrubs and/or small trees are on all sides, and along the road over the arch. Young trees are predominantly maple, elm, catalpa and beech.

In addition to these plans, two historic Prospect Park plant lists were found at the Library of Congress.<sup>13</sup> Written in longhand and dated August 1866, the earliest list identifies pre-existing trees and shrubs. Although the list is short, the trees noted are assigned a “quality rating” (A, B or C). General notes are also included regarding overall quantity and frequency of species, diameter, and the presence of seedlings. Information about pre-existing plants is useful for understanding native plant communities.<sup>14</sup>

A second list of trees, totaling five pages, accompanies a planting proposal entitled, *Brooklyn Park Planting Map for the Southern Part of the Long Meadow*, 1871. Common names are not provided in either the 1866 or the 1871 plan.<sup>15</sup>

Completing the available illustrative information for the Arch area are a number of historic photographs, postcards and stereoscopic views. Photographic images in Park Annual Reports and several collections including both public (Brooklyn Picture



Collection, Brooklyn Historical Society, Brooklyn, New York) and private (stereoscopic views in the Herbert Mitchell Collection, New York, New York) are useful in supplementing the historic plans. Engravings from the early 1870s and an abundance of photographic images from the early 1900s document the Arch in a variety of landscape settings. For example, during various periods the range of planting treatments included tall and medium shrubs, coniferous plants, bedding plants, and climbing or trailing vines.

### *Documentation of Existing Plant Materials*

With the foundation of historic information is assembled, the existing conditions of the Meadowport Arch area can now be assessed.

The first complete survey for Prospect Park was conducted in 1980; a more detailed survey of the Meadowport Arch area was refined and updated in 1984. At a scale of 1" = 10', the 1984 survey demarcates "areas of trees and bushes, shrubs, groundcover, weed and brush, or bare soil." Trees were identified by Latin name, common name, caliper size, and their condition and health were assessed. In this area there were few trees over 24" in caliper. On the north side, only a 29" elm and a 46" sycamore were located, and on the south, a 34" ginkgo and 24" ailanthus. Broad areas of "trees, bushes, and shrubs" were documented throughout the Meadowport Arch area. On the south, an even age stand of ten hawthorns (predominantly 4" – 6") was the exception. Signs of deferred maintenance were obvious with multiple areas of "weed and brush" or "bare ground" noted. Mulberries, young maples, locust and ailanthus trees were present in great number. Several invasive trees had reached over 20" in caliper, and were within 18" of the bridge, which could have posed long-term threats to the structural stability of this landmark structure. Overall, a half dozen character-defining trees were present.

### *Assessment and Analysis of Extant Historic Plant Materials*

A comparison of the 1984 survey with the 1935 survey, showed that most of the existing trees that surround the Arch were introduced since 1935. With five trees measuring over 24" in caliper, and only a handful of non-invasive species over 12", desirable tree species and understory materials were nearly absent. New plantings were needed not only to reinstate the character-defining landscape composition, but also to resolve environmental and functional problems. Steep, eroded slopes concealed sections of the articulated bridge foundation and undermined associated drainage structures.

Even after extensive historic research had been completed and evaluated against the existing conditions documentation, the original landscape composition and species selection remained unknown. It was determined that additional plant material information was required to make educated, site-specific treatment decisions that were sympathetic to the original construction.

### *Determination of Appropriate Preservation Treatment*

Before new plant materials could be selected, additional information regarding the historic plant palette was necessary. It was clear that a number of trees that were self-sown, or planted over the last half century, had achieved a significant size and should therefore not be removed. These considerations, combined with the contemporary issues outlined earlier in this workbook, suggested rehabilitation as the most appropriate treatment.

### *Creation of a Preservation Planting Plan and Plant List*

The early Prospect Park planting lists were used to select replacement canopy trees. For additional information about tree and understory plant materials, other period lists by the Olmsted office were consulted, along with historic photographic documentation. In selecting the plants, every effort was made to match the scale, form, and texture of the plant materials depicted in the historic views.

Little information was available on the types of shrubs, vines and groundcovers originally planted in the park. To fill this gap in the historic record, plans were consulted for three Buffalo, New York parks designed by Olmsted Vaux & Co. which were





Fig. 11: Pre-rehabilitation view of Meadowcourt Arch, Prospect Park, Brooklyn NY, 1985.

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executed during the same time as Prospect Park (between 1870 and 1875). The plant lists and a "List of Trees, Shrubs, etc. in Nurseries", published in the *Second Annual Report*, Buffalo, New York, 1872, and a "List of the Different Kinds of Trees, Shrubs and Vines in the Park," published in the *Seventh Annual Report*, Buffalo Park Commission, Buffalo, New York 1877, proved to be invaluable sources in selecting appropriate plant materials. With this information, a draft planting proposal was completed. The plants selected exist on the historic lists, met contemporary use requirements, and were determined to be available through local nurseries or specialty growers.<sup>16</sup>

### *Location and Installation of Plant Materials*

At the time of construction, some of the selected plants were unavailable. The landscape architect chose substitutes, approved the position of plant materials and oversaw their installation at Meadowport Arch. For a period of two years, a temporary fence remained in place to allow smaller plants to stabilize and firmly take root. The fence has since been removed, allowing park visitors to once again experience the magnificent approach into Long Meadow.

## **CASE STUDY TWO: POLLY POND, A. J. DOWNING MEMORIAL PARK, NEWBURGH, NEW YORK**

Andrew Jackson Downing Memorial Park was designed between 1889 and 1896 by Frederick Law Olmsted and Calvert Vaux in their last collaboration. It was a gift to the City of Newburgh, New York, and designed as a tribute to Andrew Jackson Downing, the eminent horticulturist and shaper of American architectural and landscape architectural taste. The National Historic Landmark park is slightly over thirty acres and is still today the primary open space serving the city. The Polly Pond project area, approximately 9.5 acres, surrounds the park's only water feature, and is the focus of this study. Work on the project, begun in 1991, is ongoing.

### *Historic Record Documentation of Plant Materials*

Unlike the simple schematic plans for Prospect Park, the documentation for Downing Park and the Polly Pond area is varied and rich. Four detailed planting plans exist, generated in 1895 by Olmsted, Olmsted & Eliot with Warren Manning credited as Superintendent of Planting. At a scale of 1" = 50', the four plans clearly show locations of individual trees, exact quantities, and outlines for bedding plants. Included are flowering trees; small, medium, and large shrubs; and ground covers. An accompanying plant list identifies all plants in the plan by genus and species. In addition, a field annotated drawing exists, which documents the plant materials that were installed in the 1890s.<sup>17</sup>

There is also an abundance of period postcard views and historic photographs for the Polly Pond area. This visual material, together with the original planting plans, well documents the planting for the Polly Pond area.

### *Documentation of Existing Plant Materials*

A diverse collection of plant materials exists in Downing Park today. They include sentinel specimens, some in decline; a limited quantity of remnant shrubs (none in the Polly Pond area); recently planted trees; invasive saplings; and perennial weeds.

Extensive field work was conducted to accurately document the location of all trees, as well as caliper, genus, species and health. A study was undertaken throughout the park to identify extant plant materials and determine their historical significance. In the Polly Pond Area, over twenty species of historic canopy trees were noted. They included mature beech, willow, Red Oak, Silver Maple, Sugar Maple and ginkgo, to name a few. Of this collection, nearly half were either hazardous or non-historic (e.g., Norway Maple, Norway Spruce, Crimson King Maple, cherry). A diversity of species surrounded the pond and many of the trees were mature and in decline. Along the park perimeter, there was an absence of trees, with the exception of Norway Maples on Third Street. Once all vegetation was documented, an assessment was made of the trees



that were inappropriate, or presented a safety or maintenance hazard. In all cases, unless a historic tree is in poor health or creates a hazardous condition, it should be retained and protected. All invasive or historically inappropriate trees should be removed or relocated outside the historic park.

### *Assessment and Analysis of Extant Historic Plant Materials*

After a careful review of the historic documentation, a framework for new planting was established.

To determine which of the existing trees should be saved and which should be removed, the survey of existing trees was compared with the 1895 planting plan by Olmsted, Olmsted & Eliot. In most cases the mature trees in the park today are also found on the Olmsted plan. There are a few noteworthy exceptions. For example, an informal row of eleven Silver Maples (*Acer saccharinum*) edge the north side of the central Polly Pond path. Although they are not on the original plan, their age clearly suggests that they were planted at the time of the original scheme (perhaps a substitution due to availability).

Sixty-seven trees were proposed for removal, sixty percent were small and twenty-seven percent were medium in size. The only large trees scheduled for removal were those which were either hazardous or severely deformed. Before removing mature trees in decline, the availability of same-species replacement plant materials should be ascertained. Close study of the plan revealed that half of the trees to be removed were small or medium Norway or Sugar Maples (*Acer platanoides*, *Acer saccharum*) and eleven were recently planted spruces or hemlocks that were inappropriately sited.

Since this was a historic landscape rehabilitation project, contemporary or severely deformed and hazardous trees were removed to recapture the original design intent. With this task completed, a planting proposal for new trees and understory was developed.

### *Determination of Appropriate Preservation Treatment*

As at Meadowport Arch, the goal at Polly Pond was to retain the historic character of the park landscape. Therefore, extant historic trees were to be preserved<sup>18</sup> and the overall landscape composition (including walks, furnishings and the pond) rehabilitated. The preservation treatment included the removal of inappropriate plantings (both introduced and invasive) and the reinstatement of the richly articulated landscape composition that had suffered from neglect.

The tree planting proposal relied heavily on the 1895 Planting Plan. As illustrated in the 1895 plan, and reflected in many historic postcard views (Fig. 13), there were a large number of deciduous, coniferous, and flowering trees.

Next, appropriate locations were established for new trees, and genus and species were selected — pending availability, hardiness to the region and appropriateness of habit (e.g., invasiveness). Fortunately, most of the species which were required for rehabilitation are available today. Trees that proved inappropriate have acceptable substitutions that are readily available. For example, the American Chestnut (*Castanea dentata*) is not available due to blight. The Shagbark Hickory (*Carya ovata*) possesses a form and scale similar to the American Chestnut and therefore was chosen as a substitute. As a rule, the planting plan should reflect the same mix and diversity of tree species used in the historic plan. In addition, trees should be sited in historically accurate locations.

A comparison of the proposed plant list with the historic planting plans and plant lists illustrates how the historic documentation was used. Seventeen species of canopy trees were recommended in the proposed plant list. The majority were Common Horse Chestnuts (*Aesculus hippocastanum*) and Red Oaks (*Quercus rubra*), which were suggested to reinstate the formal edges along Third Street and Robinson Avenue.

The remaining proposed trees are evenly distributed and although not commonly used today, are available. They include American Yellowwood (*Cladrastus lutea*), Northern Catalpa (*Catalpa speciosa*), Panicle Goldenrain Tree (*Koeleruteria paniculata*), and English Oak (*Quercus robur*). Trees such as these were commonly used in



Fig. 12: Same view, post-rehabilitation of Meadowcourt Arch, Prospect Park, Brooklyn NY, 1990.

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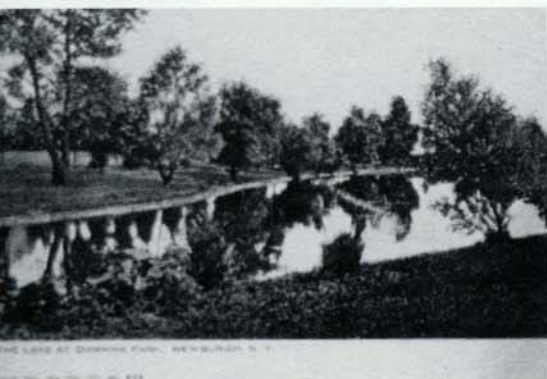


Fig. 13: Historic postcard view of Polly Pond, A.J. Downing Memorial Park, Newburgh NY.

Downing Park Planning Committee

many turn-of-the-century park landscapes, and are critical elements of the landscape composition. These species may not be available from a local supplier, but they have become more readily available from specialized growers, and even from large nurseries, because of an increase in demand.

For trees that are rare and still exist in the landscape today, genetic stock regeneration was used as an ultimate means of replacement. The National Arboretum, Washington D.C. or the Arnold Arboretum in Jamaica Plains, Massachusetts can be consulted for recommended propagation methodologies.<sup>19</sup>

An approach similar to that taken with the tree plantings is encouraged for the rehabilitation of the understory plant materials at Polly Pond. Today there is virtually no extant understory as lush as the "plantation" plantings depicted in the historic documentation of the park. The "plantation" plantings surrounded the park's perimeter and wove along the edge of Polly Pond. By today's standards the plantings are too dense and too tall, with mature shrub heights reaching twelve to fifteen feet. Therefore new plant masses, based on the original collections, had to be developed.

Three shrub groups were assembled and categorized by size: small (under three feet), medium (under six feet) and large (over six feet). Trees that were historically integral with plant groupings were included.

New plants proposed for the understory are extensive and include over three thousand plants. The loss over time of the understory, a contributing feature to the landscape, is the greatest departure from the historic design and is key to the rehabilitation of the landscape character. A vigorous understory is critical to the landscape, because it provides fiscal, aesthetic, scenic and ecological benefits.

### *Location and Installation of Plant Materials*

Unlike the Meadowport Arch project which was completed with capital funds, the work at Polly Pond is being carried out in several phases. Spearheaded by the Downing Park Planning Committee, the Polly Pond proposals are dependent on volunteer efforts and project funding. To date, through organized events such as the Arbor Day festival, where local arborists volunteer for the day, the park has begun to rehabilitate its landscape composition.

## CONCLUSION

A rehabilitated park landscape or landscape feature requires ongoing management and maintenance. Many capital projects, executed in the early to mid-1980s, have become the victims of reduced maintenance staffing in the early 1990s, and may not stand the test of time. Today, in Central Park for example, all new capital projects have an integral ongoing maintenance component that is part of the project endowment.<sup>20</sup> In other cases, the ongoing project maintenance can be achieved at the volunteer level. In both examples there is a sense of stewardship for the landscape, thus insuring its health and appearance.

The rehabilitation of a park's plant materials and the reinstatement of its landscape composition require a research-driven foundation balanced with a careful understanding of contemporary design, ecology, use, and maintenance objectives. With sympathetic design, construction and proper management, the aesthetic, scenic, ecological, and interpretive benefits can be long-term and significant.



## FOOTNOTES

1. Samuel Parsons, Jr., editor, *Hints on Landscape Gardening*, June 1917, Houghton Mifflin Company. Prince von Puckler-Muskau, 1834.
2. The *Guidelines for the Treatment of Historic Landscapes* is available from the National Park Service Preservation Assistance Division (424), P.O. Box 37127, Washington D.C. 20013-7127.
3. *Ibid.*, *Guidelines*, p. 10.
4. See City of Hartford, *Hartford Parks Master Plan*, prepared by LANDSCAPES, Westport, CT. Patricia M. O'Donnell and Charles A. Birnbaum, Contract #1156, March 1992. The original plan for South Green was by Jacob Weidenmann. The Olmsted, Olmsted & Eliot plan clearly illustrates the proposed changes that were executed. This included landscape features such as the planting of a new Charter Memorial Oak.
5. Annual reports can be found at the Central Park Arsenal or the Municipal Archives in New York City or the City of Hartford Collection, Hartford Public Library, Hartford, CT.
6. For a list of resources for historic landscape research see *Historic Landscape Directory*, pages 75084, NPS Preservation Assistance Division, 1991.
7. This park engraving and others appeared in *Scribner's Magazine*, Vol. XII No. 1, July 1892. The article titled, "The Evolution of A City Square" by Samuel Parsons, Jr., included many designs by Calvert Vaux and Samuel Parsons.
8. *Landscape Guidelines*, page 11.
9. Parsons, Samuel Jr. See related chapters in *How to Plan the Homegrounds*, 1899, Doubleday & McClure Co., p. 79-93 and *The Art of Landscape Architecture*, 1915, G. P. Putnam's Sons, p. 200-225.
10. Riverside Park tree replacement policies were discussed in an informal meeting between Susan Angevin and Charles Birnbaum, Fall 1990.
11. The contract between Monroe County Parks, Rochester, New York and EDR, Landscape Architects, Syracuse and LANDSCAPES, Historic Landscape Consultants, Westport, CT was completed in 1991.
12. The 9.2-mile Lake Washington Boulevard was a key feature in a fifty-mile system of parks, boulevards and playgrounds proposed by the Olmsted Brothers in 1903-08. Walmsley & Company were the historic landscape consultants to EDAAW, Seattle, on this rehabilitation project.
13. The historic landscape reports for the lake and perimeter districts of Prospect Park were prepared by Walmsley & Company with David Schuyler, historian. Dr. Schuyler discovered these lists during his research in the 1980s.
14. The focus of *NAOP Workbook, Volume 2, An Ecosystem Approach to Woodland Management*, 1991, by Ed Toth identifies and explores the native vegetation of the Prospect Park landscape and how to manage it.
15. According to Rex Wasserman, Prospect Park Landscape Architect, this is the only known detailed planting plan from this decade early in the park's evolution.
16. Finding plants from the historic lists that exist today and would survive with minimal maintenance was not as difficult as finding plants that were available through commercial growers. Fortunately since this planting plan was executed in the late 1980s, there are many more nurseries that are providing historic plant materials.
17. This drawing with color-pencil annotations was discovered by O'Donnell and Birnbaum during a 1991 visit to the Newburgh Historical Society.
18. See the publication, *Vegetation Guidelines: Management and Renewal* for a related discussion. 1990, Downing Park Planning Committee, LANDSCAPES.
19. Also see Lauren Meier and Nora Mitchell "Principles for Preserving Historic Plant Materials," *Preservation Technology Update*, 1990 No. 6.
20. Conversation between Tim Marshall and Birnbaum, Spring 1992.





Founded in 1980, the National Association for Olmsted Parks (NAOP) is a national network of volunteers and professionals, working to promote and protect the Olmsted legacy. NAOP is a non-profit membership organization.

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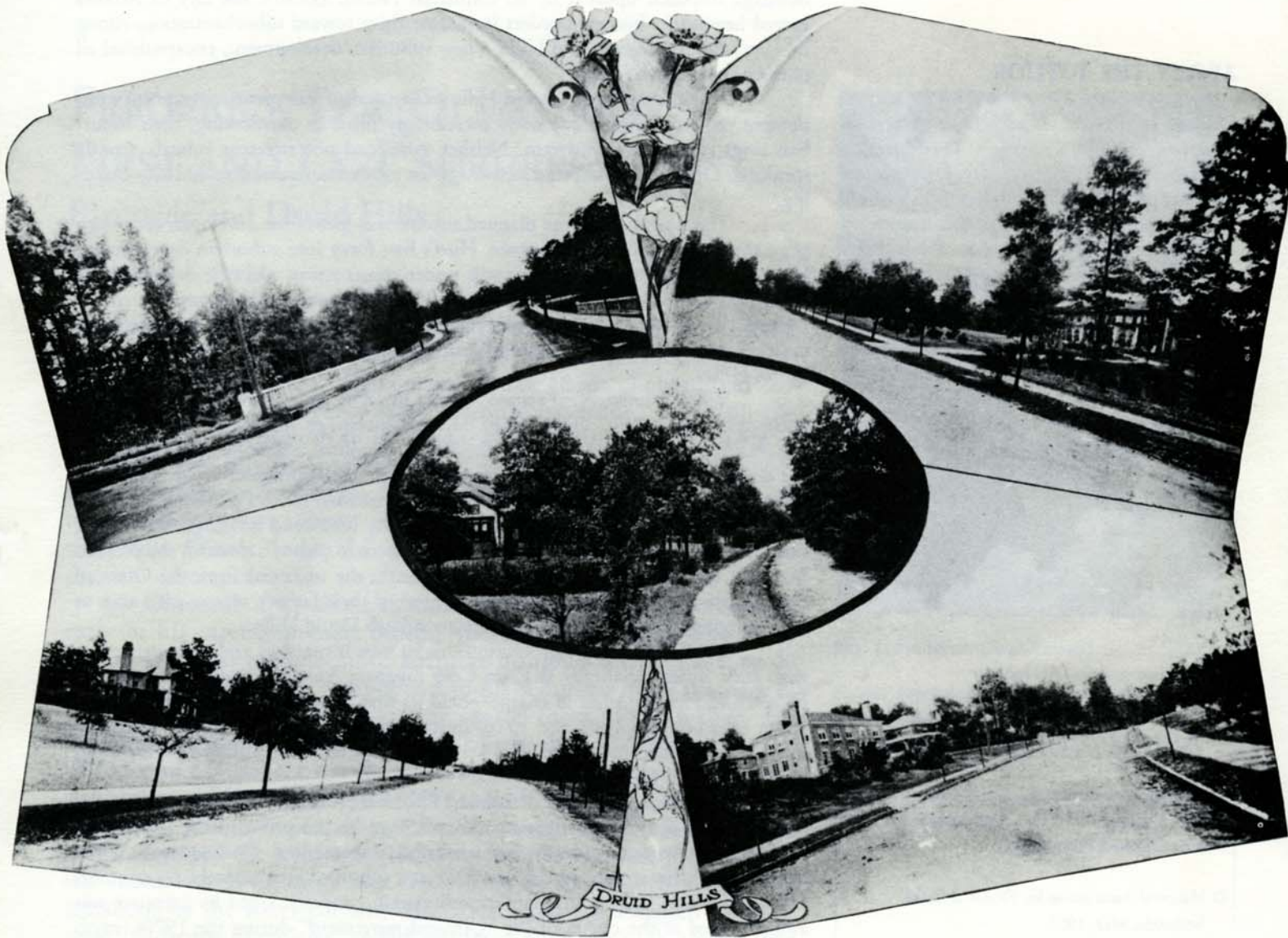
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NATIONAL ASSOCIATION FOR OLMSTED PARKS  
*WORKBOOK* Series, Volume 4  
DESIGN NOTES



FREDERICK LAW  
OLMSTED'S FIRST  
AND LAST SUBURBS:

Riverside and Druid Hills

by Darlene R. Roth



## FOREWORD

by Dana F. White, Professor of Urban Studies and Director of the Graduate Institute of the Liberal Arts at Emory University and co-editor of *Olmsted South: Old South Critic/New South Planner* (1979)

## ABOUT THE AUTHOR

Darlene R. Roth holds a Ph.D. in American Studies from George Washington University. She is currently Director of Programs for the Atlanta Historical Society and is a major participant in the creation of the Society's new Atlanta History Museum. She is the author of numerous articles and three books.

The author wishes to acknowledge Sally Harbaugh, who generously made available her valuable research material on Frederick Law Olmsted and Druid Hills, and Spencer Tunnell II, who compiled the visual documentation on Druid Hills for this paper.

Cover: Montage of views of Druid Hills, c. 1915

Atlanta Historical Society, Inc.

## NAOP WORKBOOK

This paper was excerpted from a study prepared for the Druid Hills Civic Association and The Atlanta Olmsted Parks Society.

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Bethesda, MD, 1993

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The 1890s were, to resort to that convenient catch-all concept, a decade "in transition." Nationally, the economy boomeranged between prosperity and panic. Regionally, a rural South struggled to free itself from the perceived colonial bondage imposed upon it by an industrial North. Locally, the city of Atlanta surged beyond its historic borders in its first drive toward suburbanization. Along the city's eastern edge, Druid Hills, a new suburban development, encapsulated all of these transitional forces.

A planned suburb, Druid Hills was typical of late nineteenth century settlement patterns: with urban cores increasingly filled to overflowing, their suburban rings rippled ever outward. Neither a railroad nor streetcar suburb, strictly speaking, Druid Hills reflected new stages in urban transportation and city building.

The force behind the planned suburb was Joel Hurt: developer, civil engineer, speculator, and transit magnet. Hurt's first foray into suburban development had been Inman Park, which was still under construction when he organized the Kirkwood Land Company to develop 1,500 acres between Atlanta and the city of Decatur. In 1890, Hurt engaged Frederick Law Olmsted, Sr. to transform the undeveloped lands of the Kirkwood Properties into the verdant acres that became Druid Hills.

When Olmsted first visited Atlanta in 1890, he was approaching the pinnacle of his remarkable career. While he was reluctant to accept new commissions, the proximity of Atlanta to Asheville, North Carolina, where he was engaged in the design of Vanderbilt's Biltmore estate, as well as the prospect of advancing his profession—and his business—in the South, persuaded him to undertake the project. By 1893, Olmsted had a plan ready for the Kirkwood holdings; however, it was not until 1903 that his client had the finances in place to close on the project. In 1905, two years after Olmsted senior's death, the successor firm, the Olmsted Brothers, produced a fully-articulated version of their father's master plan and, at Hurt's urging, formally christened the new suburb Druid Hills.

The Druid Hills Corporation, under new ownership and management—with such noted Atlantans as Coca-Cola magnate Asa G. Candler, and realtors Forrest and Preston Adair in charge—held its first meeting in 1908, and conducted lot sales between 1908 and 1910. Immediately, the new suburb proved itself a success. Still, when compared to Riverside—Olmsted's first suburb—Druid Hills has remained all-but forgotten.

The near-invisibility of Druid Hills in the Olmsted design canon has at least three causes. First is documentation. Since its inception in the late 1860s, Riverside has been assiduously and admirably documented. Consequently, it has become the ultimate measure of the Olmsted suburb. Until recently, by contrast, Druid Hills was little more than an antiquarian curiosity. Until its narrative was authenticated at the outset of the "Olmsted movement" during the 1970s, myth and history were interchangeable in its story. Second is context. Olmsted's final major efforts—Biltmore, the Stanford campus, Boston's "Emerald Necklace," as well as the development of his firm and profession—have been so imposing as to subsume seemingly lesser efforts into near oblivion, even those of the magnitude of Druid Hills. Third is measure. Until the component parts of Olmsted's two major suburbs—Riverside and Druid Hills—could be isolated and placed side-by-side for comparison, the Atlanta project lacked perspective.

The paper that follows examines and compares key design concepts embodied in the plans for Riverside and Druid Hills, and traces the evolution of Frederick Law Olmsted's ideal from "suburban village" to "centreless suburb." Druid Hills, Darlene Roth establishes, "represents a culmination in the suburban design of the mature Olmsted," and emerges as "the prototype for early twentieth century suburbanization." Olmsted's design journey from Chicago to Atlanta spanned both decades and miles; throughout, that journey was marked by a continuity of vision.



# NATIONAL ASSOCIATION FOR OLMSTED PARKS

# WORKBOOK

Series, Volume 4  
DESIGN NOTES

## FREDERICK LAW OLMSTED'S FIRST AND LAST SUBURBS: Riverside and Druid Hills

by Darlene R. Roth

According to the master list of projects of the Olmsted firm, Frederick Law Olmsted and his partners initiated fifteen suburban projects between 1890 and 1895.<sup>1</sup> By contrast, in the 1860s Olmsted had executed plans for only three subdivisions, including, in 1868-69, Riverside, the first suburb to be designed by the firm. In the 1870s, as post-Civil War suburbanization gained momentum, the firm undertook nine suburban projects. In the 1880s, the firm initiated more than twice that number—twenty-three—of which thirteen were still on-going in the 1890s. Clearly, “suburbia” developed the Olmsted firm as much as the firm developed it.

Olmsted's ideas about suburban developments were formulated early in his career. In basic outline they did not change with time; rather, Olmsted became more adept at bringing them to reality. In essence there were three components to his suburban ideal: the park or public space element, which was the central focus of the suburb, and served as the “drawing card” to make it more than an “ordinary” place. The second component was the parkway, conceived as both a connector and a pleasure drive, which linked the suburb with the nearby city, and provided a pleasurable experience for the commuter. The final component comprised the residential buildings, which took the form of “villas,” constructed on large lots. The siting of the suburban villa was enhanced by the street pattern, which was expressly designed to maximize landscape amenities, shield residents from through traffic, and adhere to the natural topography of the land.

During his career Olmsted mastered all three components in varying combinations. In the design for Riverside he achieved a successful relationship of public open spaces to the residential lots and street pattern. However, the parkway he proposed to connect Riverside with Chicago was never built. Olmsted's approach to comprehensive planning was more fully expressed in his park system for Boston, where a circle of parks and parkways—the “Emerald Necklace”—link all parts of the city and provide a continuous green belt. Developed for urban Boston, the plan did not incorporate the residential villa. In Druid Hills, however, Olmsted had the opportunity to integrate all three components: the park, the parkway, and the ideal residential setting. The result is that Druid Hills represents the fullest realization of Olmsted's ideal suburban development.



Fig. 1: Frederick Law Olmsted, Sr., c. 1890.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts



Fig. 2: Railroad bridge from Blooming Bank Road, Riverside.

*Riverside in 1871 with a Description of Its Improvement.*  
Riverside Improvement Co., originally published 1871.

Marion Pressley



## DRUID HILLS AND RIVERSIDE COMPARED

There are six areas in which the plans of Druid Hills and Riverside diverge: treatment of the railroad; street pattern; parks; parkway; architectural development; and autonomy/dependence of the suburb.

### *Treatment of the Railroad*

When Olmsted was commissioned to design Riverside in 1868, certain elements of the town were already in place. Most importantly, the suburb-to-be was a railroad stop, with tracks running east-west across the 1,600-acre development. In the design for Riverside, Olmsted minimized the linearity of the railroad by softening its physical presence with trees and other landscape elements, and by orienting the street pattern away from the tracks. As evidenced in the preliminary report for the Riverside plan, Olmsted was not an advocate of the commuter railroad. "A railroad at the best," he stated in the report, "affords a very inadequate and unsatisfactory means of communication between a rural habitation and a town."<sup>2</sup>

At Druid Hills, there was no railroad when Joel Hurt set out to develop the property in 1890. However, to his alarm two years later, the Georgia, Carolina, and Northern Railroad announced plans for a new commuter line, which was to run through the proposed suburb. Hurt fought a bitter legal battle to keep the railroad from building in Druid Hills, and called on Olmsted for support. In all likelihood it was Olmsted's able testimony during the controversy which saved the suburb from the unwelcome intrusion of train tracks. As finally built, the railroad just skirted the easternmost edge of the proposed development.

The threat of the railroad removed, Olmsted could proceed with his original plan for Druid Hills, which featured an "electric road," or trolley line. Soon after he had visited the 1,500-acre tract in 1890, Olmsted advised Hurt that it would be "essential to the success of the undertaking that an electric road, or other convenient, rapid, agreeable and popular means of communication...be provided between the city and some central point on the property."<sup>3</sup>

In recommending a trolley, Olmsted was advancing a transportation mode relatively new to Atlanta. He was also drawing on his client's capabilities: in 1889, Hurt had built a trolley line to service his new development of Inman Park. While Hurt endorsed Olmsted's plan for an electric trolley, he was less enthusiastic about the firm's proposal to build the line adjacent to, rather than in the middle of, the projected parkway linking Druid Hills and Atlanta.





### *The Parkway*

The term “park-way” was coined by Olmsted and Calvert Vaux in the late 1860s. They defined it as a thoroughfare “designed with express reference to the pleasure with which [it] may be used for walking, riding, and the driving of carriages; for rest, recreation, refreshment, and social intercourse.”<sup>4</sup> The purpose of a parkway was to allow people “to pass from it to distant parts of town, as, for instance, when they want to go to a park, without the necessity of travelling for any considerable distance through streets no more convenient for the purpose than our streets of the better class are.”<sup>5</sup> Unfortunately, the parkway Olmsted proposed building between Riverside and Chicago was never built. At Druid Hills, however, Olmsted was able to see this important component of his suburban ideal come to fruition.

Olmsted first suggested a parkway to connect Druid Hills and Atlanta in 1890. In a letter to Hurt, he wrote:

Fig. 3: Trolley Lane along the Parkway, Druid Hills, c. 1941.

Atlanta Historical Society, Inc.





Fig. 4: Photograph taken by John Charles Olmsted, c. 1902, showing Ponce de Leon Avenue after grading.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts

This Parkway should be as spacious as circumstances will permit; and should be finely constructed, and adequate arrangements should be made for lots being well shaded by handsome, umbrageous, permanently thrifty trees. It will be desirable that only vehicles adapted to pleasure driving shall be allowed to use this Parkway, as is determined by law.<sup>6</sup>

By way of example, Olmsted referred to parkways already constructed in New York, Boston, Buffalo, and Chicago, which his firm had designed.

By 1892 plans for both a parkway and a streetcar line were under consideration for the new suburb. But upon receiving Olmsted's design for the parkway in 1893, Hurt fired off an indignant telegram: "Map of avenue received, thoroughly impracticable. Will break the company to build it."<sup>7</sup> The chief point of contention was Olmsted's placement of the trolley line alongside the parkway, instead of in the middle of the street, as was customary. The extra trolley lane made the parkway's width unusually wide—and, as Hurt pointed out—hugely expensive to build. Olmsted stood firm. The advantages of the plan were three, he countered: the trolley could be built more inexpensively on turf than in the street; it would be better screened from the residential lots; and it could run at a higher rate of speed. A flurry of letters ensued in which the Olmsted firm continued to argue the finer points of its design. A personal visit from Olmsted to the site sealed the matter. The plan was accepted, and the parkway was surveyed, platted and staked. Construction of the broad thoroughfare—named Ponce de Leon Avenue—and the trolley line took place in the early 1900s.

### *The Street Pattern*

There are few descriptions of the land in the correspondence concerning Druid Hills and no narrative project report has ever been found.<sup>8</sup> But evidence suggests that the larger portion of the property was wooded; other areas had been farmed, and some was still under cultivation when Hurt and his associates purchased the tract. Reporting the sale of the property, *The Atlanta Journal* declared: "Nature itself has been lavish in gifts to this magnificent sweep of woods and shaded fields."<sup>9</sup> Writing to his son John Charles in 1890, Olmsted merely described the

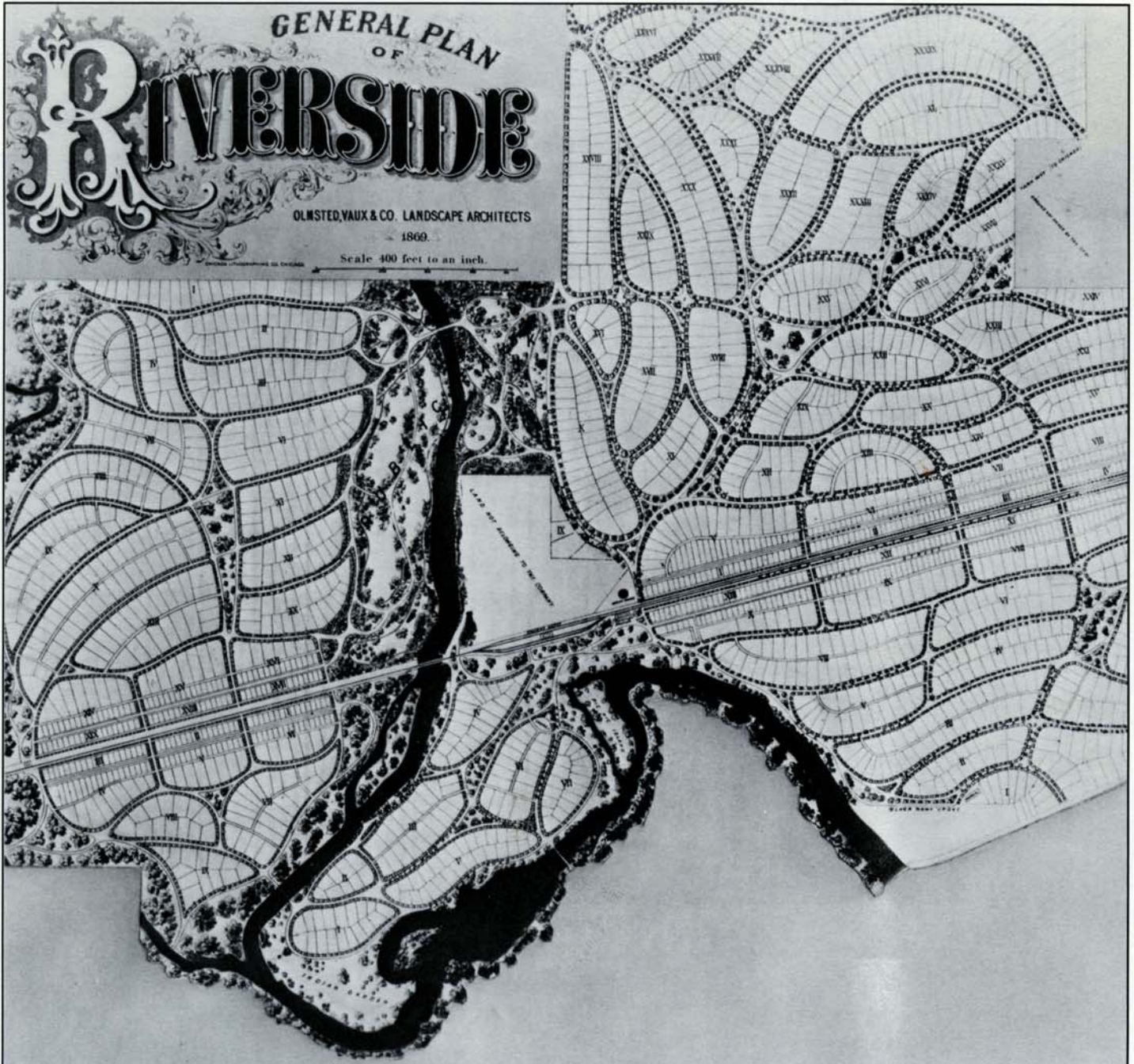


land as “wooded” and “hilly,” and later as “rolling” ground with “little level land and no high hills.”<sup>10</sup>

The design problem inherent in the street pattern for Druid Hills was quite different from that of Riverside. At Riverside, the primary topographic element was the Des Plaines River and the primary topographic hurdle the railroad. In Druid Hills Olmsted had a palette of intricate curves, hillocks, small streams, and unending variations of the land with which to work. Olmsted knew that to carve out straight streets at Druid Hills would be prohibitively expensive, as well as counter to his regard for the natural topography. Yet remarks made in the course of his plans for Chevy Chase, Maryland, at about the same time, indicate that his approach to streets was thoroughly rationalized, and not governed wholly by the visions of the picturesque. “To lay out streets...fitting the natural surface, but with the aim of making them both more eligible and more economical,” he said, “was a task requiring much more original study and exercise of ingenuity than has ordinarily been applied to the laying out of streets.”<sup>11</sup> In “fitting the natural surface” at Druid Hills, Olmsted created a topographically sensitive plan for the streets, which by nature’s intent gave curvilinearity to the design.

Fig. 5: The Plan for Riverside, Olmsted, Vaux & Co., 1869.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts





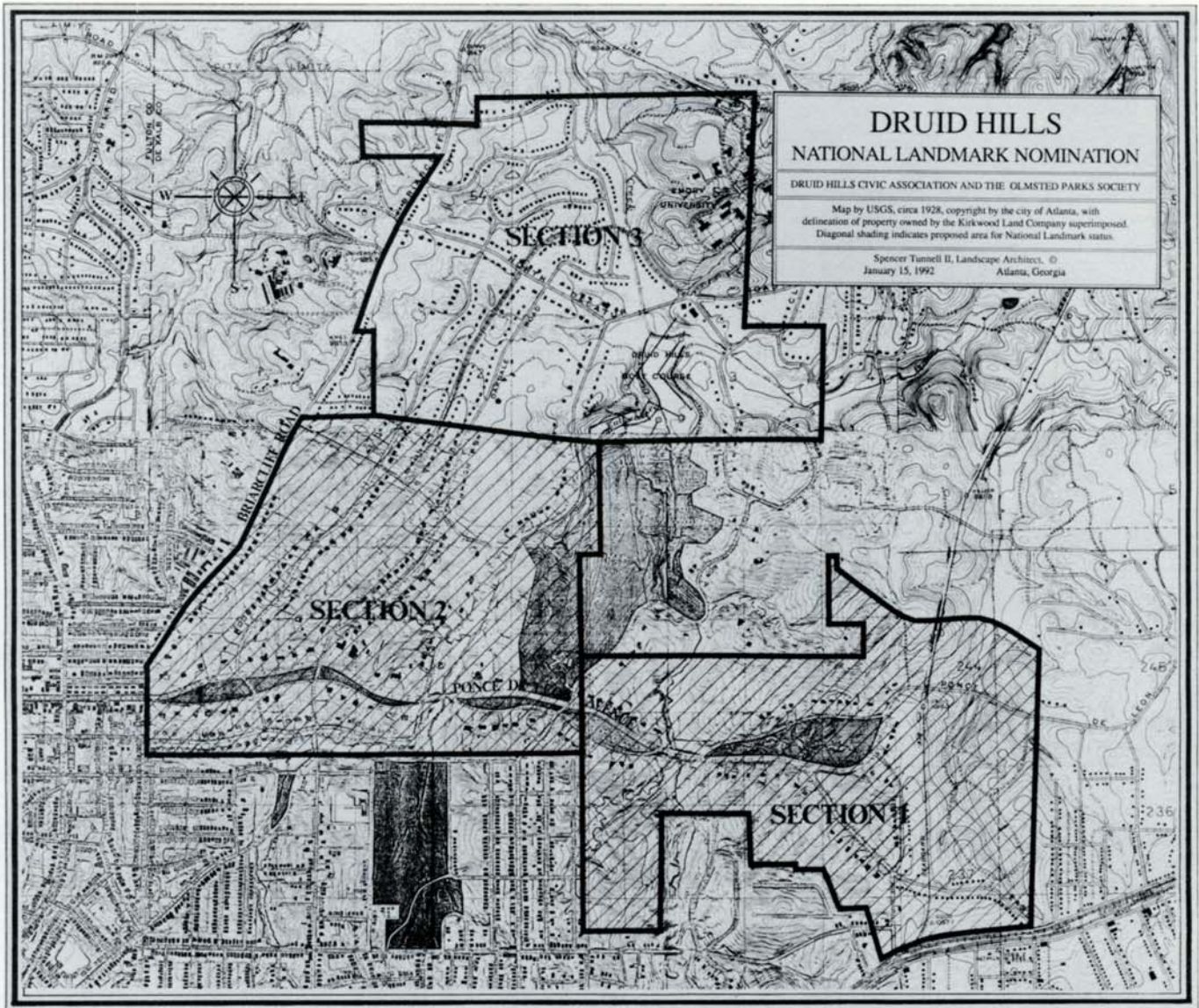


Fig. 6: Map of Druid Hills, c. 1928. Sections 1 and 2 correspond most closely to the master plan developed by Frederick Law Olmsted, Sr. in 1893.

Spencer Tunnell II

A curvilinear street pattern was an Olmsted trademark, but the curvilinearity of Riverside and Druid Hills was substantially different. At Riverside, where the ground was flat, and nature would have facilitated a grid pattern, the streets curved back and forth on one another like the outlines of petals on a chrysanthemum. In Druid Hills, where the ground was hillier, the streets instead assumed linearity. They curved topographically, but they related to each other, and to the main streets, with a degree of rectangular regularity. This was particularly true of the north/south streets—Springdale, Oakdale, and Lullwater—and of Clifton Road, which served as a link between Ponce de Leon Avenue and the old (North) Decatur Road.

### *The Parks*

Six parks fall alongside Ponce de Leon Avenue; additional “natural” areas and a golf course lend more park elements to the neighborhood. What is different about the Druid Hills parks from other Olmsted park systems is that both the parks and the parkway are an intrinsic part of the suburb, and are experienced simultaneously. By contrast, in earlier Olmsted suburbs, they are experienced sequentially: first the park, then the parkway, or vice versa. The parks in Druid Hills are designed as different kinds of environments, reflecting Olmsted’s interest in separating passive and active recreation areas. Significantly, they also relate to the residential lots, making them more than recreation areas, but also places to



view from the houses themselves. Indeed, from some perspectives, the parks appear to be extensions of the lawns and gardens.

As a system, the parks and parkway of Druid Hills reveals a sophisticated evolution in Olmsted's ideas for traffic and circulation design in a residential area. Writing in 1868, Olmsted prophesied that existing street patterns would soon have "to be supplemented by a series of ways."<sup>12</sup> Such "ways" were to be made accessible to every dwelling house in a neighborhood, something which was exquisitely achieved in Druid Hills.

The nucleus of this idea was further explored by Olmsted in 1870. Here he argues for the advantages of small parks over large ones:

Numerous small grounds so distributed through a large town that some of them could be easily reached by a short walk from every house, would be more desirable than a single area of great extent, however rich in landscape attractions it might be. Especially would this be the case if the numerous local grounds were connected and supplemented by a series of trunk roads or boulevards...<sup>13</sup>

On a grand scale this is exactly what Olmsted accomplished in Boston, with the "Emerald Necklace." The plan for Druid Hills reveals a similar park system on a much smaller scale, where walkways and lanes connect the houses to the parks and cut across the longer streets to make free pedestrian passage possible.

Fig. 7: View through Shadyside Park, Druid Hills, showing the character of Ponce de Leon Avenue, 1990.

William Thompson







Fig. 8: Nuttall Road, adjacent to the Long Common, Riverside, c. 1885.

Riverside Historical Society

### *Architecture*

Olmsted, Sr., considered himself primarily a park designer, and his approach to suburbs was centered on the land; nonetheless, he encouraged good architecture in his developments. "Let your buildings be as picturesque as your artists can make them," he urged in *Public Parks and the Enlargement of Towns*.<sup>14</sup> But Olmsted also recognized that the quality of architecture could not always be dictated. "We cannot judiciously attempt to control the form of the houses which men shall build," he wrote to his clients in Riverside. "We can only, at most, take care that if they build very ugly and inappropriate houses, they shall not be allowed to force them disagreeably upon our attention when we desire to pass along the road upon which they stand."<sup>15</sup>

In the early years of his career, Olmsted left architecture primarily in the hands of his partner Calvert Vaux. After separating professionally from Vaux, Olmsted was even less involved in architectural design. In many of the suburbs which Olmsted designed, his role in the project was completed after the street plan was laid out and surveyed. Occasionally, Olmsted remained involved through the first phase of construction, but seldom did he have much say in the



architecture of his suburbs.

In the plan for Riverside, the architectural seeds were planted by Calvert Vaux, who designed a number of the original fifty residences, most in the Gothic Revival style. Only a few of these still stand. Riverside's development was halted soon after it got started, and the ensuing years saw development continue at an uneven pace. The result is a grand collection of architectural styles—including works by Louis Sullivan and Frank Lloyd Wright, among others—without the architectural homogeneity of later suburbs.<sup>16</sup>



Fig.9: A residence on Barry Point Road, Riverside, designed by Olmsted, Vaux & Co.

*Riverside in 1871 with a Description of Its Improvement.*  
Riverside Improvement Co., originally published 1871.

Marion Pressley

Druid Hills, by contrast, had a different development pattern. It, too, was halted in its development, but even before any of the houses had been constructed. When building recommenced, development was relatively quick and more similar in its architectural expression. While Druid Hills could never be considered architecturally homogeneous, a greater section of it was developed at one time than Riverside, and there is a basic consistency among the buildings reflected in the period revivals of the 1920s and 1930s: Mediterranean Revival, Colonial Revival, Classical Revival, with Georgian Revival and English Vernacular Revival predominating.<sup>17</sup> The result is visual variety which has a distinct sense of time and historic period attached to it.

### *A Question of Suburban Autonomy*

It is apparent from Olmsted's early writings that he conceived of the suburb as a community, identifiable by its shape and location, related to an urban core and attached to it by some convenient transit means, but separate from that same urban core. The suburban community was also at least partially self-sufficient and autonomous.

In Olmsted's view, a suburb enjoyed rural scenery as well as urban advantages. Citing a suburban example, Olmsted wrote in 1870:

I have seen a settlement, the resident population of which was under three hundred, in which there was a public laundry, bath-house, barber's shop, billiard-room, beer-garden, and bakery. Fresh rolls and fresh milk were supplied to families before breakfast time every morning; fair fruit and succulent vegetables were delivered at house doors not half an hour after picking; and newspapers and magazines were distributed by a carrier.<sup>18</sup>

In Riverside Olmsted and Vaux had such a suburban "village," which is, in fact, what they called that subdivision. As a village, Riverside had a center: a railroad depot, hotel, small commercial block, a chapel, and a school constituted the communal core of the suburb. By 1871, when most of the improvements had been made to the land and the commercial core was complete, the Riverside





Fig. 10: View of Druid Hills Golf Club, c. 1915.

Atlanta Historical Society, Inc.

Improvement Company boasted that their “model suburban neighborhood combine[d] the conveniences peculiar to the finest modern cities, with the domestic advantages of the most charming country, *in a degree never before realized*.”<sup>19</sup>

Druid Hills was planned without the central commercial and community core of Riverside. It is much more a “bedroom” community than a suburban village as represented by the Riverside model. At Druid Hills, Olmsted planned a hotel within the subdivision, but no commercial block, nor even a trolley depot. The parks, if anything, were the communal center. Olmsted could have designed Druid Hills entirely differently. When purchased by Joel Hurt, the property consisted of open and wooded land, bisected by a few unpaved country roads. The tract was located several miles from both Atlanta and Decatur and did not abut any other residential settlements. As such, the site and location of Druid Hills could have justified the development of a suburban village. Instead, Olmsted elected to design Druid Hills as a residential—or centreless—suburb.

According to Olmsted’s chief biographer, Laura Wood Roper, when Olmsted was planning suburbs, there were two basic types of suburbs in America: those which were distinct and separate settlements, like Riverside, and those which constituted the outskirts of towns, and were extensions of a city’s grid system. “Only rarely,” states Roper, “was a suburb placed upon unoccupied land at a convenient distance from a city and designed specifically for a suburban residents.”<sup>20</sup> Olmsted’s contribution was to conceive of the suburb in an entirely new way, as the plan for Druid Hills clearly demonstrates.

Given the significant difference between Riverside and Druid Hills, it might be argued that, over the years, Olmsted reformulated his definition of the “true” suburb. However, it seems more likely that Olmsted recognized the potential of new and growing trends in transportation and communication technologies and their use in creating a new type of residential form. In his preliminary analysis of the Druid Hills property, Olmsted made clear reference to the impact of technology on suburban development:

A further development...has of late appeared in the formation of large, comprehensively designed, permanent suburbs, homogeneously rural in the character of their scenery in which special art can be used to combine in the greatest degree practicable, the advantages of urban and country residences. *The movement in this direction is being rapidly accelerated by various recent improvements in means of communication, such as electric street*





*cars, electric lighting, the telegraph and telephone.* There is every reason to believe that it will be permanent and that suburbs of the character indicated will sooner or later be established in the vicinity of any considerable flourishing town.<sup>21</sup>

In making the transition from “suburban village,” as exemplified by Riverside, to the “centreless suburb” of Druid Hills, Olmsted introduced a suburban form which would become ubiquitous across the American landscape in the twentieth century. Indeed, the centreless suburb is now so common a phenomenon that, to the uninformed observer, the significance of Druid Hills is unapparent. But seen against the backdrop of suburban development in the United States, Druid Hills emerges as the prototype for early twentieth century suburbanization, in the same way that Riverside is prototypical for nineteenth century suburbanization.

## CONCLUSION

Druid Hills represents the best available example of what might be called the mature Olmsted. Olmsted's basic design principles have been identified by Charles E. Beveridge and others: they include the separation of transportation modes; the reservation of public spaces as an essential part of a suburban residence; the non-grid street pattern; respect for the local topography and flora; and specialized park experiences.<sup>22</sup>

In the plan for the Druid Hills, Olmsted not only successfully applied his design principles, he expanded and refined them to produce an integrated design in which the parks, parkway, and residential settings are all interlaced. He also accepted—indeed, welcomed—new transportation and communication technologies, such as the trolley, which linked the suburbs to Atlanta. Enlarging on earlier ideas, Olmsted included turn-outs, separate entry roads for residents, and circular carriage drives at each house in Druid Hills, all of which transmuted very easily into automobile usage. Druid Hills *looks* like an early automobile suburb, which is not how Olmsted conceived of it, but it became one, as development of the suburb continued in the 1920s and 1930s. Most significantly, from its very inception, Druid Hills established a new suburban form—the residential suburb—and presaged suburban living as the predominant lifestyle of twentieth century America. Likewise, the future of the Olmsted firm in the twentieth century would lie more with the success of suburban development across the country than with the creation of large public parks.

Fig. 11: Homes on Springdale Road, Druid Hills, c. 1920.

Atlanta Historical Society, Inc.





Fig. 12: Neal residence, Druid Hills, c. 1915.

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## FOOTNOTES

1. See Charles E. Beveridge, and Carolyn F. Hoffman, comps., *The Master List of Design Projects of the Olmsted Firm, 1857-1950* (National Association of Olmsted Parks and Massachusetts Association of Olmsted Parks, 1987), pp. 37-50.
2. *Preliminary Report Upon the Proposed Suburban Village at Riverside, Near Chicago*, 1868; reprinted, 1982 by Wicklander Printing Corp., Chicago IL, p. 9.
3. FLO & Co. to Joel Hurt, December 5, 1890. Olmsted Papers, Library of Congress (OP/LC).
4. Olmsted, Vaux & Co., "Observations on the Progress of Improvements in Street Plans, with Special Reference to the Parkway Proposed to be Laid Out in Brooklyn," Brooklyn, 1868, quoted in S. B. Sutton, *Civilizing American Cities*.
5. *IBID.*
6. FLO & Co. to Joel Hurt, December 5, 1890. OP/LC.
7. As cited in FLO & Co. to Joel Hurt, March 3, 1893. OP/LC.
8. A report may not have been prepared, since the design for the parkway system was considered "preliminary." Olmsted relied on both written and oral reports in dealing with his clients, a point made by Cynthia Zaitzevsky in the study of Olmsted's Boston projects. See *Frederick Law Olmsted and the Boston Park System* (Cambridge, MA: Belknap Press of Harvard University, 1982), p. 139, and chapters on the design process. See also FLO to John Olmsted, February 17, 1893, from Chicago. OP/LC.
9. *The Atlanta Journal*, May 19, 1908, "Druid Hills, Joel Hurt Property, Sold for a Cool Half Million," p. 1.
10. FLO & Co. to J. R. Cross, March 18, 1892. OP/LC.
11. FLO to Mr. Newlands, November 10, 1891. OP/LC.
12. Olmsted, Vaux & Co., "Observations on the Progress of Improvements in Street Plans, with Special Reference to the Parkway Proposed to be Laid out in Brooklyn," Brooklyn, 1868, pp. 7-21; quoted in Sutton, p. 41.
13. Reprinted in Sutton, and quoted from p. 74.
14. *IBID.*
15. *Preliminary Report Upon the Proposed Suburban Village at Riverside*, p. 24.
16. Riverside Historic District, Riverside Landscape Architectural District, National Historic Landmark nomination form, statements of description and significance.
17. Druid Hills Design Guidelines (Atlanta Urban Design Commission, n.d.), Gail Morgan Timmis, editor.
18. Quoted in Sutton, p. 63.
19. "Riverside in 1871, with a Description of Its Improvements Together with Some Engravings of Views and Buildings," facsimile reproduction, p. 6. Italics in the original.
20. Laura Wood Roper, *FLO: A Biography of Frederick Law Olmsted* (Baltimore: The Johns Hopkins University Press, 1973), pp. 321-22.
21. FLO & Co. to Joel Hurt, December 5, 1890. OP/LC. Italics added.
22. Transcription of tape recorded lecture by Dr. Charles E. Beveridge at Emory University, February 3, 1983, pp. 13-15, 22-23, 25, 30-34.



## SUGGESTED READINGS

Since John Reps began publishing his surveys of American city plans during the mid-1960s, Riverside has been featured prominently and consistently in studies of planning, design, and landscape architecture. Supplementary, more specialized accounts include: Herbert Bassman, *Riverside—Then and Now* (1936 & 1958); *Riverside: A Village in a Park* (1970); Edward Straka, *The Riverside Landscape* (1981); Edward Straka, *Master Plan for the Revitalization of the Central Business District: Riverside, Illinois* (1981); and *The Years of Olmsted, Vaux & Co. 1865-1874* (1992).

With the celebration in 1972 of the 150th anniversary of FLO's birth, scholarship on the history of Druid Hills had its beginnings, but Olmsted's last suburb has yet to enter his design canon. The basic text remains Elizabeth A. Lyon's "Frederick Law Olmsted and Joel Hurt: Planning for Atlanta," in Dana F. White and Victor A. Kramer, eds., *Olmsted South: Old South Critic/New South Planner* (1979). In the Summer/Fall 1982 issue of the *Atlanta Historical Journal*, Dana F. White's "Landscaped Atlanta: The Romantic Tradition in Cemetery, Park, and Suburban Development" and Andrew M. Ambrose's "The Ties That Bind: Work and Family Patterns in the Oakdale Road Section of Druid Hills, 1910-1940" expand upon Lyon's seminal study. Finally, the Atlanta Design Commission's manual *Druid Hills Historic District: Design Guidelines*, Gail Morgan Timmis, ed. (n.d.), and the *ALA Guide to the Architecture of Atlanta*, Gerald W. Sams, ed. (1992) survey the built environment.





Founded in 1980, the National Association for Olmsted Parks (NAOP) is a national network of volunteers and professionals, working to promote and protect the Olmsted legacy. NAOP is a non-profit membership organization.

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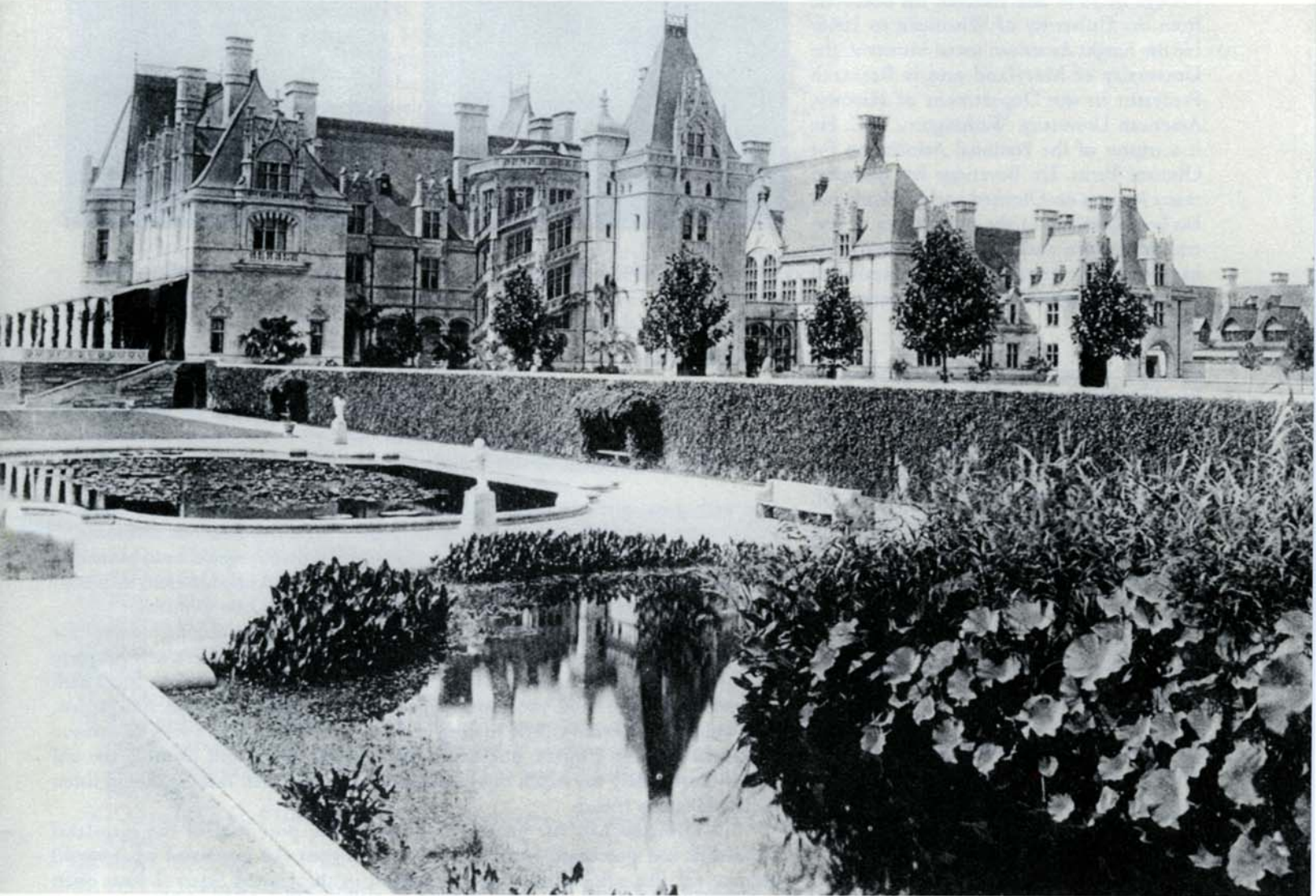
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NATIONAL ASSOCIATION FOR OLMSTED PARKS  
*WORKBOOK* Series, Volume 5  
BIOGRAPHY



THE OLMSTEDS AT  
BILTMORE:

Frederick Law Olmsted, Senior  
*by Charles E. Beveridge*

Frederick Law Olmsted, Junior  
*by Susan L. Klaus*



## ABOUT THE AUTHORS

Charles E. Beveridge is Series Editor of the Frederick Law Olmsted Papers, published by Johns Hopkins University Press. He graduated magna cum laude from Harvard College in 1956 and received his doctorate from the University of Wisconsin in 1966. He has taught American social history at the University of Maryland and is Research Professor in the Department of History, American University, Washington, D.C. He is a trustee of the National Association for Olmsted Parks. Dr. Beveridge has delivered many lectures on Olmsted and his work and has been involved in the preparation of several exhibitions and films on Olmsted. He has also been a consultant for a number of restoration projects of Olmsted parks and landscapes.

Susan L. Klaus, an independent historian based in Washington, D.C., has a particular interest in planning and landscape history. Currently serving her second term on the NAOP board, she has published a number of articles on Frederick Law Olmsted, Jr. She is also a member of the Board of Managers of the Historical Society of Washington, D.C.

Cover: View of Biltmore House from Formal Terrace.

Frances Loeb Library, Graduate School of Design, Harvard University

## NAOP WORKBOOK

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Bethesda, MD, 1995

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George Washington Vanderbilt  
(1862-1914)



William Amherst Vanderbilt Cecil

## FOREWORD

*The introduction was written to welcome the National Association for Olmsted Parks to Biltmore for the conference Balancing Nature & Culture in Historic Landscapes: A Celebration of Biltmore's Centennial, April 20-23, 1995.*

It is with great pleasure that I welcome the National Association For Olmsted Parks to my grandfather's home, Biltmore Estate™, during this, our centennial. I would like to believe that if he were here, George Vanderbilt would be as pleased as I am to extend our utmost hospitality to such an esteemed organization, dedicated to the preservation and protection of the work of Frederick Law Olmsted.

As you know, Mr. Olmsted was instrumental in the original concept for Biltmore as a working estate. When he first visited my grandfather's new property in North Carolina, Olmsted told him, "My advice would be to make a small park into which to look from your house; make a small pleasure ground and garden, farm your river bottom chiefly to keep and fatten livestock with a view to manure and make the rest a forest, improving the existing woods and planting the old fields." Fortunately for us all, my grandfather knew full well that he should listen to his old family friend.

Olmsted had the great vision to see the potential of the farmland Vanderbilt had purchased and the wisdom to suggest the genesis of what would become the first scientifically managed forest in the United States. I have often thought how satisfied Mr. Olmsted would be to see his last and largest private work at its maturity. Every year—and particularly every spring when the grounds burst into bloom—thousands of us enjoy his handiwork and are grateful to him for such insight one hundred years ago.

Clearly my grandfather recognized his friend as a great genius. Hanging in the second floor of Biltmore House is a portrait of Olmsted by John Singer Sargent, a portrait my grandfather had commissioned as a way of thanking him for his contribution. When you study the portrait, it is apparent that Sargent knew the great creative talent and sensitivity for the land that was central to Olmsted's character. Surrounded by indigenous rhododendron and mountain laurels he appears totally at home there in the woodlands on Biltmore Estate.

In 1890, Olmsted wrote to John C. Olmsted about his project in the mountains near Asheville. He termed it the "first great private work of our profession in this country" and then muses wistfully, "I should like to confine myself to it for the rest of my days." I would like to believe that he did—and does—just that.

*William A. V. Cecil, grandson of George Vanderbilt, and owner of Biltmore House.*



# WORKBOOK

Series, Volume 5  
BIOGRAPHY

## “THE FIRST GREAT *PRIVATE* WORK OF OUR PROFESSION IN THE COUNTRY”

Frederick Law Olmsted, Senior, at Biltmore

by Charles E. Beveridge

The Biltmore Estate was Olmsted's last major project, the one that dominated the last seven years of his professional career. “I should like to give myself up to this place,” he wrote his young partner Henry Sargent Codman in October 1890, and repeated the sentiment several times thereafter.<sup>1</sup> It may seem unusual that a career so noted for designing great urban parks should end in planning a vast private estate, but Biltmore appealed to Olmsted in several ways. For one thing, he was intrigued by the prospect of seeing a major landscape undertaking carried out quickly and completely. Seldom, if ever, in his public parks did Olmsted have the pleasure of overseeing the final fine-tuning of a design, realizing the full effect he wished to achieve. George W. Vanderbilt had the resources to make that possible, and took keen interest in Olmsted's work from the start. The grandson of Cornelius Vanderbilt, the “Commodore,” and son of William Henry Vanderbilt, Olmsted's neighbor on Staten Island forty years earlier, young Vanderbilt possessed a fortune of thirteen million dollars by the time he began to develop the Biltmore Estate in 1888 at age twenty-five. He was an avid and judicious collector of books and works of art and intended to invest much time and money in creating his North Carolina retreat. Vanderbilt was already employing Olmsted in other places—designing the grounds of his summer place “Pointe d'Acadie” at Bar Harbor, Maine, and landscaping the Vanderbilt family mausoleum at New Dorp, Staten Island.<sup>2</sup>

Olmsted's enthusiasm for Biltmore was due to more than the prospect of a cordial and successful relationship with his patron. Early in the work he stated that “this is to be a private work of very rare public interest in many ways. Of much greater public interest—utility, industrial, political, educational and otherwise, very possibly, than we can define to ourselves. I feel a good deal of ardor about it, and it is increased by the obviously exacting yet frank, trustful, confiding and cordially friendly disposition toward all of us which Mr. Vanderbilt manifests.”<sup>3</sup>

George W. Vanderbilt's intentions concerning the landscape had at first been simple and predictable. Leading Olmsted to the site he had selected for the house, he described how he had been vacationing for some time in the Asheville area, enjoying the climate and the distant



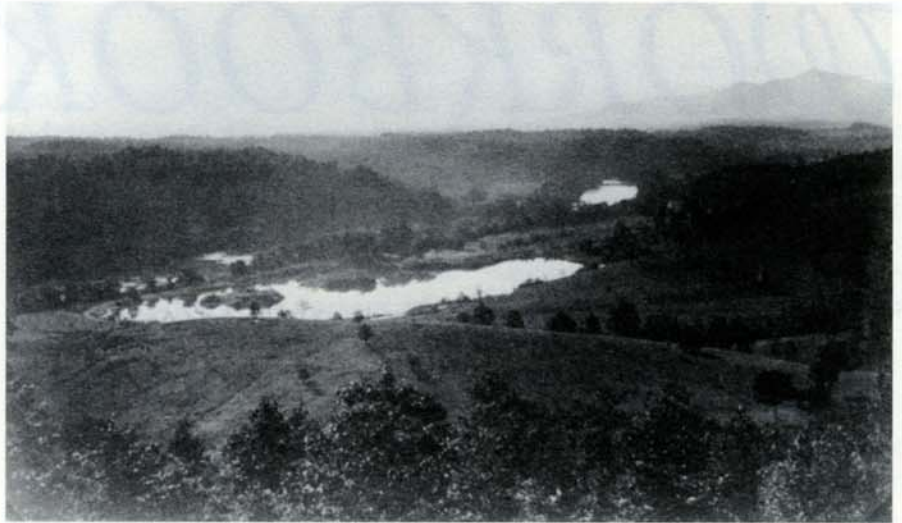
Fig. 1: Frederick Law Olmsted, Sr., c. 1890.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts



Fig. 2: Western view from Biltmore House, showing the Lagoon created by Olmsted.

Manuscript Division, Library of Congress, Washington, D.C.



views. On one of his rambles he came upon the site and thought the prospect the finest he had seen. He gradually acquired two thousand acres in the area and then turned to Olmsted to lay out a park in the traditional manner of English estates. But Olmsted assured him that the terrain was “unsuitable for anything that can properly be called park scenery:” it was “no place for a park.” Instead he suggested that Vanderbilt should make a small park as a foreground for the distant view, build some gardens close to the house, and devote the rest of his acres to forestry. This would be a good investment of his capital. Moreover, Olmsted argued, “it would be of great value to the country to have a thoroughly well organized and systematically conducted attempt in forestry made on a large scale.”<sup>4</sup> Vanderbilt took Olmsted’s advice. In time he acquired 120,000 acres for his venture in scientific forestry. Eighty thousand of these acres became the basis of Pisgah National Forest, encompassing the “cradle of forestry” in the United States. Olmsted prevailed on Vanderbilt to hire young Gifford Pinchot, one of the first Americans to be trained in forestry in Europe, to oversee the undertaking. After three years at Biltmore, Pinchot left to pursue a notable career in conservation and forestry that included serving as the first head of the U.S. Forest Service. The Biltmore School of Forestry, founded in 1898 by Pinchot’s successor Carl Schenck, also increased the public significance of Olmsted’s plan for the estate.

The other ambitious scheme with a public purpose that Olmsted proposed for Biltmore was a great arboretum, which he envisioned as “better and *greater*, more comprehensive, than any existing Arboretum in the world.”<sup>5</sup> With Vanderbilt’s acquiescence, Olmsted planned, constructed, and began to plant a nine-mile arboretum road that wound from near the house down to the bottom lands of the French Broad River and back up again into the hills. He intended to plant all the trees and shrubs that could be expected to thrive in the region. The arboretum was to serve as a comprehensive testing-ground of the materials of landscape architecture in the American South. Olmsted intended to plant the desirable species both as scientific specimens and in groups that displayed their landscape qualities. The collection was to include two thousand species of woody plants. He wished particularly to demonstrate to the public the effectiveness in many situations of using shrubs and small trees rather than large shade trees sur-



rounded by grass. As he explained, “there are, and are to be, a hundred places where the smaller trees and large shrubs may best be planted to one where the trees best known as “Shade Trees” are desirable.” The arboretum would also display species of trees desirable for forestry. With high expectations, he declared that it “would serve much more to advance the science of dendrology; the business of forestry, and the art of landscape improvement” than anything that had been done or suggested by the national government or any public institution in the country.<sup>6</sup> As work on the forest, the arboretum, and the grounds of the house progressed, he exclaimed, “It is a great work of Peace we are engaged in and one of these days we shall all be proud of our parts in it.”<sup>7</sup> Selection of species for the arboretum that would make it a truly scientific collection was a continuing problem, however, and after Olmsted’s forced retirement in the summer of 1895 the project languished. However, the great nursery at Biltmore, which included three hundred acres of trees and shrubs, was an important commercial source of plant materials throughout the country during the next twenty years.

It was rather in the more private parts of the estate’s planning—the Approach Road and grounds of the house—that Olmsted saw his concepts realized. Here, too, there was a public purpose to be served. In all the designing of private estates that Olmsted carried out, he was creating examples of good taste that would demonstrate the superiority of his designs to the decorative gardening and ostentatious display that he encountered on so many estates of the rich. Biltmore would be visited by many potential taste-makers; its influence would extend far and wide.

The three-mile Approach Road to the house at Biltmore was Olmsted’s primary opportunity for work of this character. The road ran briefly along the Swananoa River, crossed a stretch of open, pastoral scenery, then entered a narrow stream valley. In this valley Olmsted brought to bear all his genius for creating complex and powerful passages of scenery. Outlining his concept to Vanderbilt, he proposed that

the most striking and pleasing impression of the Estate will be obtained if an approach can be made that shall have throughout a natural and comparatively wild and secluded character; its borders rich with varied forms of vegetation, with incidents growing out of the vicinity of springs and streams and pools, steep banks and rocks, all consistent with the sensation of passing through the remote depths of a natural forest.<sup>8</sup>

However, Olmsted was not content to recreate the same scenery that could be experienced in other valleys nearby—valleys that his son enthusiastically described as having “great banks and hillsides of rich rhododendrons and glossy Kalmias ten and fifteen feet tall, with mats of galax leaves and tangles of leucothoe along the stream—all with dark, smooth evergreen leaves.”<sup>9</sup> The Biltmore Approach Road offered Olmsted an opportunity to create the most ambitious work of his career in the “picturesque” style. It was not simply the scenery of North Carolina that he wished to evoke: it was rather the overwhelming sense of the bounteousness and mystery of nature that he had experienced in the tropics. As he instructed the estate’s nurseryman Chauncey Beadle, he wanted to secure “an aspect more nearly of sub-tropical luxuriance than would occur *spontaneously* at Biltmore.”<sup>10</sup> As always, Olmsted sought to create a landscape design that would provide an intense and



Fig. 3: Biltmore Approach Road under construction.

Manuscript Division, Library of Congress



Fig. 4: Biltmore, Approach Road.

Manuscript Division, Library of Congress



unique experience for its users.

The basis of the plantings would be the native materials of the region: he urged Vanderbilt to collect thousands of *Rhododendron maximum* plants, raise them in a nursery for a few years, and then install ten thousand of them as the background planting of the Approach Road. In front of these rhododendrons he proposed to place a wide variety of plants, many of them evergreen, that would achieve the effect of richness, delicacy and mystery that he desired. These would include five thousand "of the most splendid hybrid Rhododendrons (such as they exhibit under tents at the horticultural Gardens of London)," supplemented by Himalayan and Alpine rhododendrons. Among them should be scattered laurel, native and Japanese andromedas, Japanese euonymus, aucubas and mahonia. Along the edge of the brook and also on the edge of the drive he planted a great variety of delicate vegetation including "the refined little *Abelia rupestris* with a cloud of most delicate bloom" and numerous low evergreen plants, ivy and euonymus.<sup>11</sup> As time went on, he searched increasingly for plant materials that would provide variety of color and texture in winter. He sought for hardy olives or evergreens with an olive tint, and more junipers, red cedars and yews. At the same time he increased the variety and intricacy of the scene with numerous "flowering beds of *little* waterside plants"<sup>12</sup>

Such plant materials increased the effect of "complexity of light and shadow near the eye" that was an essential element of his picturesque style of planting. They also contributed to the illusion of extended space that he sought to create along the Approach Road. He wanted "low-growing, lustrous and fine-flowering plants" in the center of the valley, while on the steeper slopes on the sides he planned "dense, towering walls of foliage." In order to heighten the sense of profusion and richness throughout, he directed that deciduous trees along the road should be covered with evergreen climbers. This would "increase the complexity—the screening tropical luxuriance of the scenery," especially in winter.<sup>13</sup> In the vicinity of the larger pools along the road, he proposed to have a body of foliage and deep shade with an opening "reach-





Fig. 5: Pools along the Approach Road.

Manuscript Division, Library of Congress

ing back for a considerable distance above, with glints of sun-lighted bits of water, with enough low foliage to make it intricate and mysterious, and to exclude the idea of there being anything artificial in what is seen.”<sup>14</sup>

Throughout the three miles of the Approach Road, the visitor was to be immersed in a rich passage of scenery where the “art to conceal art” was consistently practiced. This would increase the contrast with the first view of the mansion when, as Olmsted described it, “the visitor passes with an abrupt transition into the enclosure of the trim, level, open, airy, spacious, thoroughly artificial Court, and the Residence... breaks suddenly and fully upon him.”<sup>15</sup> Entering the Esplanade, the visitor sees the facade of the chateau to the right, set off by a foreground panel of grass with a circular fountain basin set low in the center. The two drives along the outer edges of the grass rectangle are flanked on the outside by rows of tulip trees that frame the building and block any distant view. To the left a high wall with foot-ramps leading from either end completes the sense of enclosure. This treatment of space is a classic example of Olmsted’s design principles. By the quick transition from the picturesque Approach Road to the formal Esplanade, he avoided the “incongruous mixture” of landscape styles that he so disliked. The Esplanade’s simplicity, combined with the way that the allée of trees blocks the distant view, creates a space where all elements are devoted to the presentation of the building. As he had done before in planning the grounds of the U.S. Capitol, Olmsted subordinated the materials of landscape architecture to heightening the effect of architecture. From the front door the visitor can look back, gaining the full effect of the Vista that extends upward beyond the wall of the *rampe douce* to a distant statue. Olmsted graded this hill and planned the long allée of the Esplanade and Vista so as to increase the spaciousness of the view eastward from the house.

Olmsted seldom intruded on the sphere of the architect concerning the general style and arrangement of buildings whose grounds he planned, but here he did press for constructing two structures adjoining



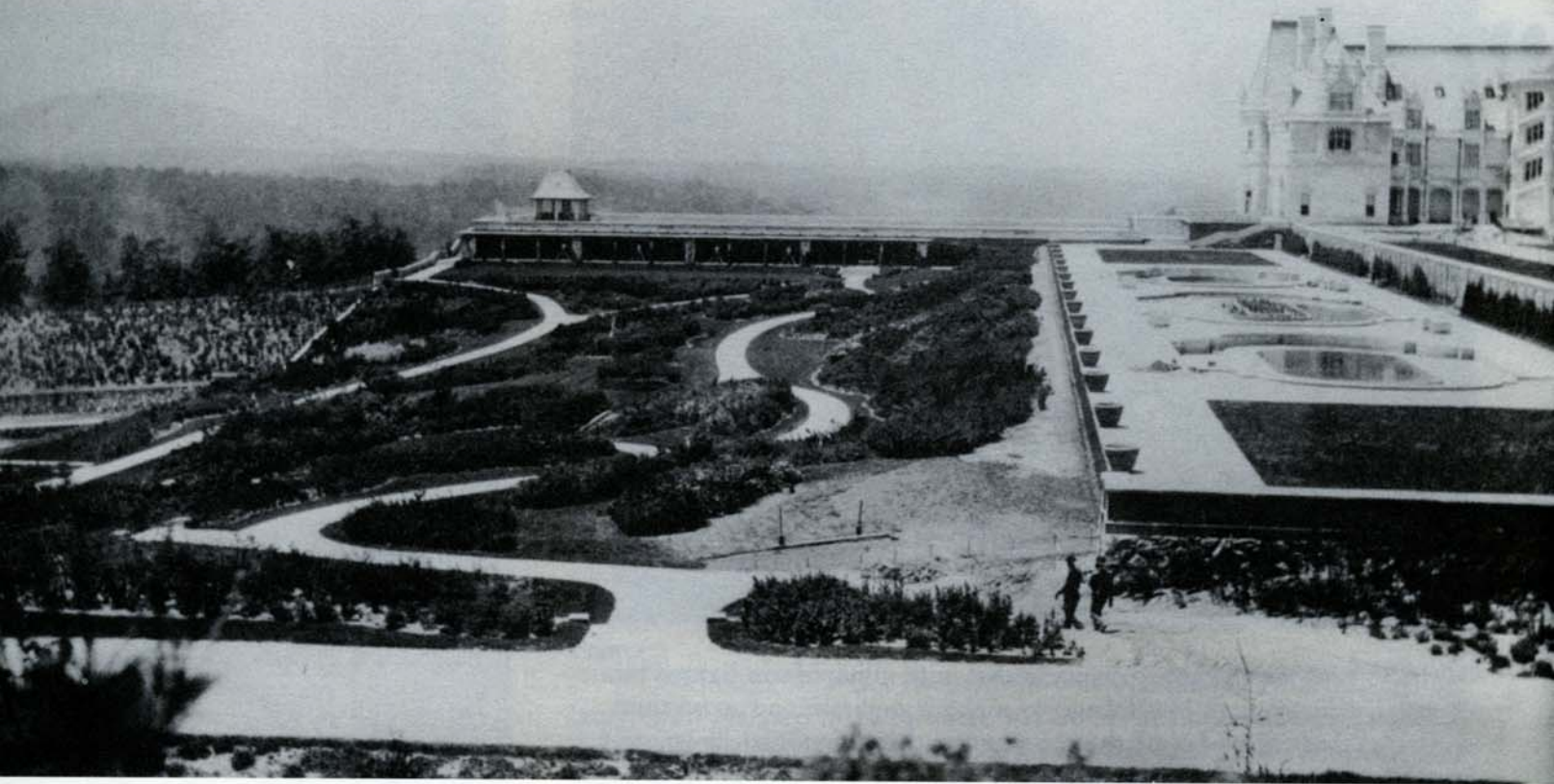


Fig. 6: Panoramic view, 1895, showing the Esplanade, Formal Terrace, and Ramble (Shrub Garden).

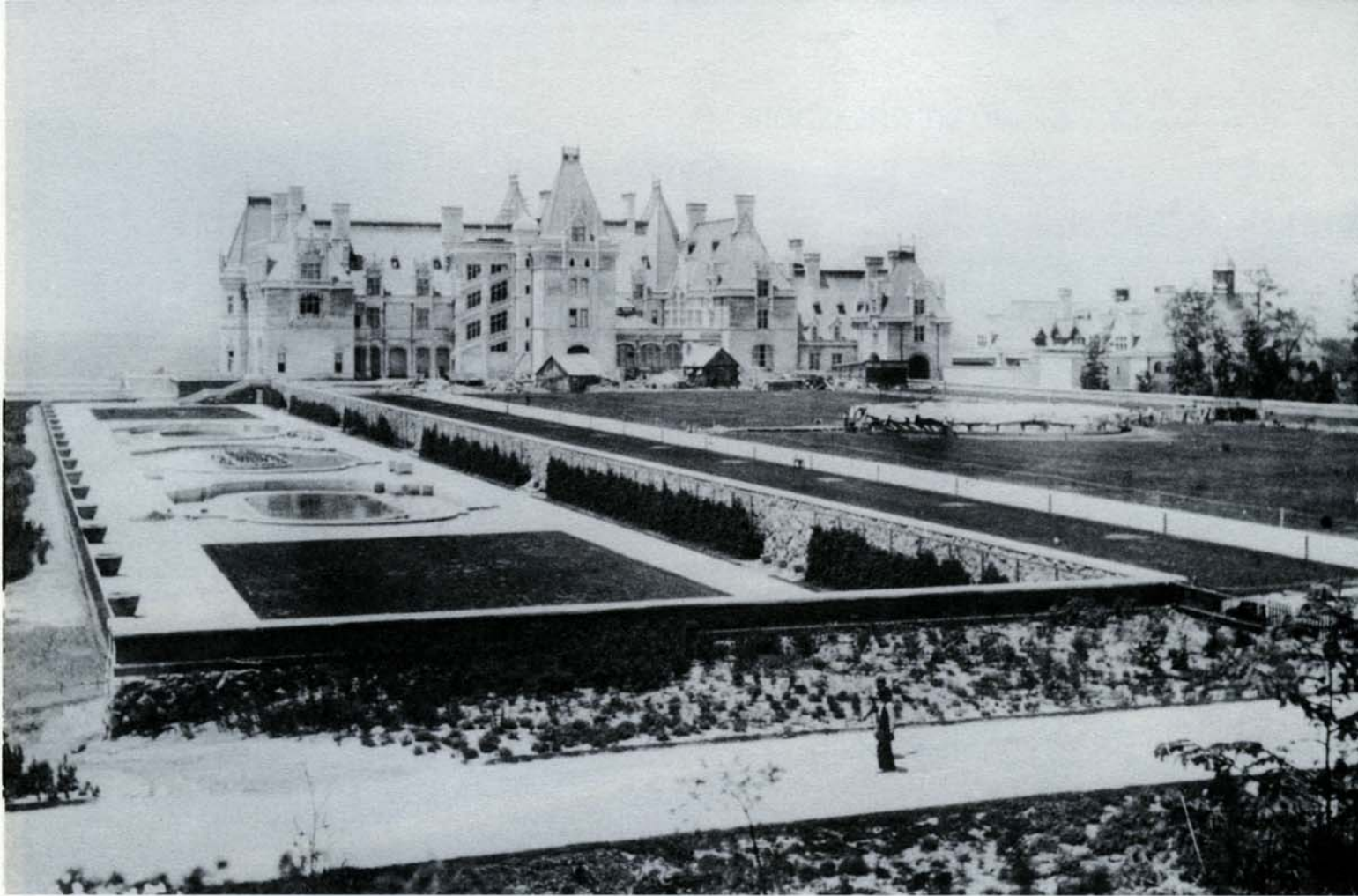
National Park Service, Frederick Law Olmsted National Historic Site

Biltmore house. One issue was convenient arrangement of outbuildings: he proposed a complex of stables northwest of the mansion, primarily to shelter the entrance from northerly winds.<sup>16</sup> The stable is hidden from view by the row of tulip trees on the north side of the Esplanade and by a dense planting of pines adjoining it.

Secondly, Olmsted urged construction of a terrace on the south side of the mansion in order to present the panoramic view in the most impressive way. He had taken pains to screen the western view from the Approach Road, and blocked that view from the Esplanade. It was necessary to pass through the house in order to enter the loggia from which the vista could be enjoyed. In addition, he wanted a separate space of greater size, accessible without entering the house, for experiencing the view. Standing on the terrace and looking across the Deer Park and the French Broad River toward Mount Pisgah and the Great Smokies, one is not even aware of the mansion: instead, the visitor is projected into a space where nothing need be seen but the view. In this way Olmsted made special provision for the one element of the site that had led George W. Vanderbilt to select it for his residence. At the same time, he conceived the terrace as "a great out of door general apartment" for a variety of uses. He wished Biltmore to illustrate the advantages of extensive outdoor living space next to a residence, and indeed the terrace covers an area as large as the mansion. To his partner John C. Olmsted he observed, "I have seen but one house that had anything like the amount of out of door living room that I think is desirable."<sup>17</sup> As part of this conception, he proposed the "tea house" at the southwest corner. The terrace was one of several visually separate spaces that Olmsted planned adjoining the mansion.

Descending the steep hillside south of the Esplanade, Olmsted





also designed three areas that were invisible from each other and had no distant view. The first, running the length of the Esplanade on its south side but set several feet below it, was a narrow terrace designed in a formal style. As first proposed, it had three geometrically shaped basins, one for fish and two for aquatic plants. These water features were set between four parterres containing plants forming geometrical patterns. The south wing of the house is visible from the garden, which echoes the formal French style of the mansion. By this arrangement, Olmsted intended to include a space that continued the formal treatment of the Esplanade, while permitting horticultural decoration that he would have considered too distracting to permit in the foreground view of the house. The southern orientation of the formal terrace with the high sheltering and sun-reflecting wall along its northern side also provided a more protected enclosure than was possible on the Esplanade. The final design consisted of three basins, with simple grass panels at each end. Historical photographs show none of the intricate parterre planting contained in Olmsted's original plan of 1892.

On the hillside below this formal terrace, Olmsted created a "Ramble" that he described as "a glen like place with narrow winding paths between steepish slopes with evergreen shrubbery."<sup>18</sup> Set in the lee of the house and the view-terrace as it was, he intended this feature to serve as a protected space where one could walk in relative comfort even in stormy weather. This feature came to be called the Shrub Garden. The treatment of plantings was unusual in that it was not thickly planted with ground cover right to the edge of the paths, as was the case with the Ramble in Central Park and the Biltmore Approach Road itself. Instead, there were areas of turf between the paths and the masses of shrubs and small trees. He apparently intended it to demonstrate an

Fig. 7: To the right of the mansion is the stable, and to the left is Olmsted's Terrace.

National Park Service, Frederick Law Olmsted National Historic Site





Fig. 8: View of Ramble (Shrub Garden) from viewing terrace, with wall on edge of Formal Terrace and *rampe douce* beyond.

Manuscript Division, Library of Congress

alternative to shade trees surrounded by lawn, a treatment he thought was used too often. In this respect the Ramble has the character, and serves the educational purpose, that Olmsted planned for much of the Biltmore arboretum. He particularly wished to develop such a landscaping approach for areas of the South where turf would not stay fresh and green all summer.

A brick arch at the eastern end of the Ramble allowed the visitor to pass under the drive and into the more naturalistically planted vale at the top of the Glen. It consisted of a central lawn area with masses of shrubbery on its steep sides. This area came to be called the Spring Garden.

South of the Ramble was the one space that fits Olmsted's definition of a garden. It is a walled enclosure visually separate from areas with broad landscape effects and devoted to growing plants without any attempt at landscape composition. Olmsted intended to devote this garden to growing choice fruits, vegetables and "decorative flowers" for use by the Vanderbilts. He was particularly anxious to make it a demonstration ground for espaliered fruit. To this end he enlisted the help of a French nursery especially noted for supplying such fruit. He thought the example would be a valuable one for Americans, who did little of that sort of gardening.<sup>19</sup> A heated conservatory building was needed to grow early-ripening and delicate fruits, palms, ferns and flowering plants. Olmsted carefully sited the building at the lower end of the walled garden so that it would not interfere with the view of the lake from the Esplanade.<sup>20</sup>

The fruit and vegetable garden was simply a functional space,



whatever its educative value might be, and was not part of the scenic progression leading away from the house. To follow this, visitors continued down through the Glen. Olmsted developed this area as a sheltered area picturesquely planted with a variety of shrubs. He used some of the mountain laurel and rhododendron that played so important a part in the scenery of the Approach Road, but most of the shrub planting was of other sorts. The special character intended for the Glen seems to have been an atmosphere of delicacy achieved through prolific use of ferns and low-growing, flowering plants. Because the Glen was to be used only by pedestrians, Olmsted could create an effect of greater intricacy and refinement than was possible along the Approach Road. In time, this area was transformed by head gardener Chauncey Beadle into an azalea garden, which name and character it retains today.

The final area in the succession of spaces designed in connection with the house was the Lake, today called Bass Pond. Olmsted created it at the bottom of the Glen where two streams met. He constructed two islands to add variety to views across it, increasing the apparent extent of space beyond them and creating "more effect of intricacy and mystery." The islands were also to serve as secluded nesting places for waterfowl.<sup>21</sup> Olmsted directed that the islands and shallow shores of the pond were to be planted with aquatic plants gathered locally— flags, rushes, cat-tails and irises that would create an impression of wildness and profusion.

The shelter and stone stairs at the upper end of the pond still retain much of the rustic character and scenic beauty that Olmsted planned for them. At the far end of the lake one can still experience the dark enclosure of hemlocks, overhanging the dam and the stream below it, that Olmsted described in his written directions for planting the area.

After leaving the pond, the Glen Road descends to the flood plain of the French Broad River where it passes agricultural fields and rustic stone bridges. A major feature is the Lagoon, planned by Olmsted to produce a larger area of water in the view from Biltmore House than the river alone provided. The Lagoon also acts as a reflecting pool for the view back toward the house. In this area one also encounters the pastoral landscape of the Deer Park that Olmsted created as a foreground for the vista from the terrace.

Today the landscape of Biltmore Estate provides a remarkable evocation of the scenic variety that Olmsted sought to create there. The rhododendrons of the Approach Road are still striking, however much the richness and variety of Olmsted's planting has been simplified and the delicate ground cover along the edge of the road replaced by mowed grass. In the grounds near the house, one can still experience the progression through separate spaces planted for different effects that Olmsted designed so carefully.

For Olmsted, the Biltmore project remained a crucially important commission. In the spring of 1894 he reiterated that "The public is more and more making a resort of the place and I more & more feel that it is the most permanently important public work and the most critical with reference to the future of our profession of all that we have."<sup>22</sup> At the same time, his work there took a toll on his health. Whenever he visited the estate he was nearly prostrated by vertigo and related symptoms. In the letter quoted above, he reported: "I am feeling the elevation in increased heart action and aggravated roaring and deaf-



Fig. 9: Biltmore House from the Lagoon.

National Park Service, Frederick Law Olmsted National Historic Site



ness but so far have escaped sickness and blind-staggers, and hope not to be laid up as before." On other trips he had to retreat to bed for a week, unable to eat or walk, before becoming acclimatized. Such sickness was a sign of his growing frailty and a reminder that the Biltmore project was a race against time. By the fall of 1894 it was evident that his memory was no longer reliable. Increasingly he forgot what his earlier plans had been and contrived new and different solutions for design problems already solved. By November 1895, effectively removed from professional practice but still hoping for a recovery, he wrote his son concerning Biltmore:

I can only say that as the time for revision of the work draws near, and as I am drawn away from it and realize more and more the finality of this withdrawal, the intenser grows my urgency to be sure that what I have designed is to be realized.<sup>23</sup>

### Notes

1. Frederick Law Olmsted [hereafter cited as FLO] to Henry Sargent Codman, 19 October 1890, Frederick Law Olmsted Papers [hereafter cited as Olmsted Papers], Manuscript Division, Library of Congress, Washington, D.C. Olmsted saw Biltmore as a critically important commission for his young partners—Codman and John Charles Olmsted. For them, he predicted, "this work will, twenty years hence, be what Central Park has been to me. The first great *private* work of our profession in the country." FLO to John C. Olmsted, 27 October 1890, Olmsted Papers.
2. Olmsted also planned the grounds of estates for four of George Vanderbilt's siblings: "Shelburne Farms," the estate on Lake Champlain near Burlington, Vermont, of his sister Eliza and William Seward Webb; "Florham," the estate in Madison, New Jersey, of his sister Florence Adele and Hamilton McKown Twombly; "Elm Court," the estate in Lenox, Massachusetts, of his sister Emily and William Douglas Sloane; and "Rough Point," the estate in Newport, Rhode Island, of his brother Frederick K. Vanderbilt (see John M. Bryan, *Biltmore Estate: The Most Distinguished Private Place* [New York, 1994], pp. 17-24).
3. Frederick Law Olmsted to William A. Thompson, 6 November 1889, Olmsted Associates Records [hereafter cited as Records], Series A, Letterbook 5, p. 470, Manuscript Division, Library of Congress, Washington, D.C.
4. FLO to Frederick J. Kingsbury, 20 January 1891, Olmsted Papers.
5. Frederick Law Olmsted, Jr., to John Charles Olmsted, 19 August 1895, Records, Series H2, Letterbook 3.
6. FLO to George W. Vanderbilt, 30 December 1893, Records, Series A, Letterbook 31, p. 814.
7. FLO to Messrs. Gall, Manning, Beadle, Boynton and Bottomley, 10 June 1894, Olmsted Papers.
8. FLO to George W. Vanderbilt, 12 July 1889, Olmsted Papers.
9. Frederick Law Olmsted, Jr., to Philip Codman, 4 January 1895, Records, Series H2, Letterbook 3.
10. FLO to Chauncey Beadle, 27 July 1895, Records, Series A, Letterbook 41, p. 711.
11. FLO to George W. Vanderbilt, 12 July 1889, Olmsted Papers.
12. FLO to John C. Olmsted, 31 October 1890, Olmsted Papers.
13. FLO, manuscript fragment, Olmsted Papers.
14. FLO to James Gall, 28 August 1891, Records, Series A, Letterbook 16, p. 627.
15. FLO to George W. Vanderbilt, 12 July 1889, Olmsted Papers.
16. FLO to Richard Morris Hunt, 2 March 1889, Records, Series A, Letterbook 3, pp. 255-56.
17. FLO to John C. Olmsted, 5 April 1895, Records, Series H2, Letterbook 3.
18. FLO to Richard Morris Hunt, 2 March 1889, Olmsted Papers.
19. FLO to Croux & sons, 7 January 1893, Records, Series A, Letterbook 24, pp. 296-303.
20. FLO to Richard Morris Hunt, 19 July 1890, Records, Series A, Letterbook 9, p. 65.
21. FLO to George W. Vanderbilt, 29 January 1891, Records, Series A, Letterbook 12, p. 669.
22. FLO to partners, 3 May 1894, Olmsted Papers.
23. FLO to Frederick Law Olmsted, Jr., 7 November 1895, Olmsted Papers.



## "A BETTER SCHOOL COULD SCARCELY BE FOUND"

Frederick Law Olmsted, Junior, at Biltmore

by Susan L. Klaus

For one hundred years there was a Frederick Law Olmsted actively engaged in shaping the American landscape. Frederick Law Olmsted, Senior (1822–1903), the progenitor of the profession landscape architecture in America, was an influential public presence during the second half of the nineteenth century. In the early decades of the twentieth century, Frederick Law Olmsted, Junior (1870–1957), began a career which was to be equally long, wide-ranging, and illustrious.

The responsibility of inheriting both the famous name and the family profession was the leitmotif that dominated the final years of the father's career and the formative year of the son's professional life. Suffering from insomnia, physical ailments, and, finally, a deteriorating mental state, the elder Olmsted was consumed with the fear that his time would run out before his son was launched on his own career. A loving and proud father, Olmsted's final wish was to ensure that his youngest child and only son was well prepared to assume his rightful place in the profession which the father had labored to create. For, he would impress upon his namesake, "the value of your patrimony is to lie in your ability to gradually qualify yourself to advance the work that I am soon to wholly drop."<sup>1</sup>

It was at Biltmore that the younger Olmsted would "qualify" to take his place in the family firm. "Look you sharp" to the special opportunities presented at the estate, Olmsted instructed his son. "Your school for nearly all wisdom in tree and plants and planting is at Biltmore." The younger Olmsted well appreciated the opportunity Biltmore provided to gain practical experience in plant selection, agriculture, forestry, landscape design and engineering. He agreed that "a better school could scarcely be found" for serving his final apprenticeship before entering the family firm.<sup>2</sup> Biltmore also provided the stage on which father and son would play out their personal drama. At Biltmore Olmsted, Jr., was forced to come to terms with both the practical advantages and the emotional burden that accompanied his patrimony.

### *Youth and College*

On July 24, 1870, Frederick Law Olmsted at last, at the age of forty-eight, became the father of a son. There had been two earlier disappointments: one male infant died after two months, another lived only six hours. Neither had been named for his father; nor was this baby, whose given name at birth was Henry Perkins, after his maternal grandfather. Several years would pass before this child became his father's namesake, when Olmsted renamed his only surviving natural son Frederick Law Olmsted, Junior.<sup>3</sup>

Professional and domestic life intermingled in the Olmsted household. In 1872 the family moved from Staten Island to a four-story brownstone at 209 West Forty-Sixth Street in New York City that served



Fig. 10: Frederick Law Olmsted, Jr., c. 1890.

National Park Service, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts





Fig. 11: Olmsted, Jr.'s sketch of his father's ideas for the walled garden and garden leading to the greenhouse.

Manuscript Division, Library of Congress

both as residence and office. Soon, however, Olmsted's work began to take him for long periods to Boston, where he was advising the city's Park Department and working on the Arnold Arboretum. In 1881 he moved the family to Brookline, Massachusetts, home of his friend and favorite collaborator, architect Henry Hobson Richardson, who encouraged Olmsted to follow his example in setting up an office in the suburban community. Two years later he bought an old farmhouse at 99 Warren Street, which remained the headquarters of the Olmsted firm for nearly a century.

After graduating from the Roxbury Latin School, Rick Olmsted entered Harvard in 1890 with, he later said, "the definite expectation from the first of going into the profession of landscape architecture." During his college years he had opportunities to visit the two culminating projects of his father's career—the 1893 Chicago World's Columbian Exposition and Biltmore—and he worked parttime in the Brookline office as school permitted. In 1892 Rick spent five months traveling with his father in England and France, where the elder Olmsted combined business for the World's Fair with the opportunity to introduce his son to the public parks and great estates of England and France.<sup>4</sup>

Although Rick was twenty-four when he graduated magna cum laude from Harvard in 1894, there was no immediate invitation to join the Brookline office. That summer he worked as recorder and instrument man on a U.S. Coast and Geodetic Survey plotting the 39th Parallel through the Rockies. Olmsted had questioned whether the expedition would advance his son's professional preparation; however, by summer's end he agreed that it had been a good opportunity to gain "topographical common sense... tact and skill for ready, off-hand reconnoitering and estimating by half guess work... which are invaluable in our profession."<sup>5</sup> He was now eager for young Olmsted to proceed to Biltmore, the vast estate under construction for George Vanderbilt in Asheville, North Carolina. Here his son would serve his final apprenticeship.

### *"A Student of the Operations"*

Olmsted considered Biltmore the most important job that he had ever undertaken for a private client. He observed to his colleagues in Brookline that Biltmore was "by far the longest, most difficult, and complicated work that we have; [and] will have the largest future importance and celebrity." He also recognized that this was to be his final great undertaking, and for both these reasons he wanted his son to be a part of it. The Olmsted firm (known as Olmsted, Olmsted, and Eliot at this date), Olmsted said, would be evaluating Rick's work at Biltmore as his "first serious professional responsibility (i.e. not simply preparatory)."<sup>6</sup> His position in the Olmsted organization would be determined on the basis of his performance at Biltmore. Perhaps feeling the need to guard against possible complacency, Olmsted informed his son that in making the decision to take him into the firm, father and half-brother John Charles Olmsted would defer to Charles Eliot, the partner who was not a family member. "That is to say," wrote the father, "you are not to consider it in the least as a family matter."<sup>7</sup>

But, of course, a family matter it was. The inseparability of familial and professional concerns was evidenced by young Olmsted's





ambiguous position on the estate. "I am here primarily," he wrote a college friend, "as a student of the operations going on upon the estate."<sup>8</sup> He was not an official representative of the Olmsted firm, indeed, was not on the firm's payroll. He received a living allowance from his father. When Rick asked for firm letterhead to use in business correspondence on Biltmore's behalf, John Olmsted declined, reminding his brother that he was at Biltmore as "a student of the work.... It is better policy for you to observe and think and then write us for an opinion ... than to put your own opinions forward."<sup>9</sup> Nevertheless, for thirteen months Rick was the only Olmsted in continuous residence at Biltmore; inevitably he became involved in day-to-day decisionmaking.

Rick prepared design studies and technical reports at the request of his father and other principals on site as the construction of the estate grounds proceeded. He made scale drawings for the entrance to the Arboretum and the proposed drive around it that he sent back to Brookline for critique. At the request of the estate manager, young Olmsted corresponded with several firms for prices and specifications for the deer park fence. He conferred with James Gall, Jr., (the Olmsted firm's resident representative) and Warren Manning (the firm's horticultural expert, who made periodic site visits) as they discussed plans for gardens, lines for paths and roads, and boundaries for the Arboretum. Many evenings Rick spent an hour or more writing business letters, responding to questions from the Brookline office or requesting instructions from them. When his father was in residence at Biltmore, Rick acted as personal assistant and secretary, taking notes and transcribing his letters.

Fig. 12: Conservatory and walled garden.

Biltmore Estate



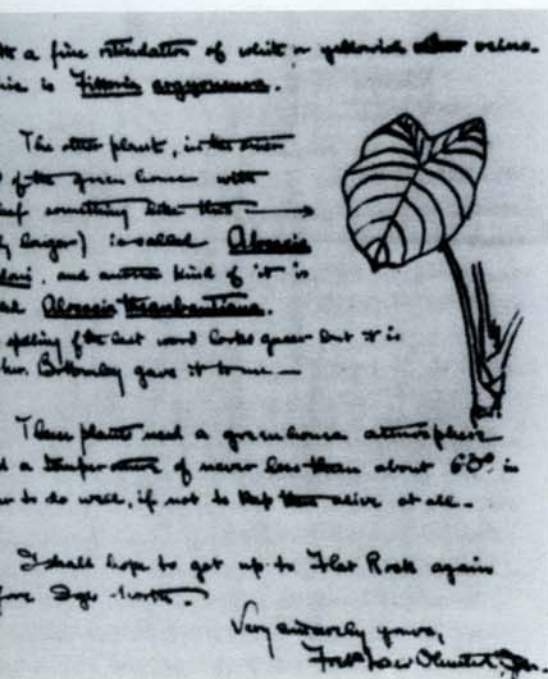


Fig. 13: Olmsted, Jr.'s hard-won botanical knowledge shown in a letter to friend requesting assistance in plant identification.

Manuscript Division, Library of Congress

Olmsted was particularly eager to have Rick involved with the proposed Biltmore Arboretum, which he believed would prove to be the most significant aspect of the whole enterprise. "The time may come," Olmsted observed, "when the fact of your having been engaged from the start in the planting of it ... will give you some prestige." Moreover, as Olmsted was keenly aware, it would be during Rick's lifetime, not his own, that the Arboretum would "become celebrated and the planting of it be regarded as a historical event."<sup>10</sup>

Rick spent many hours in the Biltmore nursery, where he worked with Chauncey D. Beadle, who served as the estate's head nurseryman for over fifty years. Here Rick worked on a catalogue of plants categorized by their properties for use in the landscape and in garden planting; and, at his father's insistence, labored to improve his general botanical knowledge. For Olmsted was determined that his son not be handicapped by what the father still considered a major hindrance to his own career—the lack of formal study of the basic tools of his trade, plant materials. Rick's most important task at Biltmore, Olmsted impressed upon him, was to act as "school-master to yourself."<sup>11</sup> "Establish the names of plants in your memory and attach ideas, figures, pictures to these names," he exhorted his son. "Review! and train yourself. No one here [at Brookline] has done half enough of this."<sup>12</sup>

### *"I believe I would better enter upon another career": Conflict and Resolution*

A stream of letters written by an increasingly distraught Olmsted descended upon Rick at Biltmore. They provide a poignant record of the deteriorating condition of the great man—his growing mental confusion, despair, and paranoia. In these rambling epistles, the aging father is by turn loving and stern, affectionate and threatening. Olmsted's many successes over his long career had not overcome a painful sense of how much more he might have accomplished with proper training. If it was in his power to do so, he would see that his son would not experience the same feelings of inadequacy or unfulfilled potential because of insufficient grounding in his profession. His namesake and professional heir, therefore, would have the double distinction and advantage of both the Olmsted name and excellent training.

Olmsted believed, as he confided to his first biographer, journalist and garden enthusiast Mariana Van Rensselaer, that his own lack of formal botanical study and technical training had forced him to rely too much upon others in the execution of his work. Olmsted particularly was determined that his son master plant nomenclature or, he threatened, "I shall not take you into this office." "If you think it is impracticable, the sooner you give up the profession the better," Olmsted flatly decreed. "But I know it is not impracticable and I insist on your making yourself an expert nursery man."<sup>13</sup>

The fond father was trying to spare his son the regret that Olmsted himself still felt, nearing the end of a celebrated career, over "my failure to have studied expressly for my profession at your age."<sup>14</sup> Rick Olmsted, however, could only see his father demanding more of him than had been required of any other current member of the firm. He responded to his father's highly charged letter with equal emotion:

[I]f you say that more ready knowledge of plants than is



possessed by you or John [Charles Olmsted] or [Charles] Eliot is essential to my thorough success as a Landscape Architect, and that the lack of it will quite or nearly neutralize my advantages from your reputation... then I am compelled to answer, with pain and regret, after the most serious and thorough thought, that I believe I would better enter upon another career....<sup>15</sup>

His father's threat not to take him into the office had "pulled the ground" from under his feet, the wounded son exclaimed. Up to this point Rick Olmsted had accepted that following in his father's footsteps was the wisest course to follow. He believed that he had dutifully done all that had been asked to prepare to carry on the family business. Now his father threatened to deny Rick the position that he had been brought up to consider his by right of birth. Under the weight of this emotional barrage, Rick began to bend. He confronted his father with doubts and anxieties about assuming the responsibility of his father's name as well as his profession that Rick had "been repressing... ever since I entered college and began choosing my studies with a view to following your profession." He had "lain awake at night many times in the past year," he confessed, trying to "thrust aside or outgrow" his doubts about becoming a landscape architect. But he found them "still assailing me. I fear that I was wrong in not mentioning them before."<sup>16</sup>

Finally able to admit his reservations to his father, Rick proceeded to spin out other options for his life, as if trying on different careers for fit and suitability. He told Olmsted that since his college days he had had leanings "more or less strong, first toward teaching, especially in Mathematics and Physics, and also in most other scientific subjects...; second and less strong toward Engineering, and third, more recent and stronger toward Architecture..." Up to this point, Rick said, he been able to suppress "these inclinations by common sense and judgment."<sup>17</sup>

During this volatile period Olmsted displayed more than an understandable parental identification with his namesake. Acutely aware of his own mortality, Olmsted was seeking solace in the knowledge that he would live on in the work of his namesake and professional heir. Although he insisted that he was trying "and I think I succeed in recognizing your individuality," Olmsted tellingly emphasized the bond between father and son. "You seem to me to have very much of my character," he told Rick; "you are weak where I am weak, you are strong where I am strong."<sup>18</sup>

With the parent-child roles beginning their inevitable reversal in the face of Olmsted's physical and mental decline, Rick's long adolescence came to an end. He had taken time to speculate about possible directions that his own life might take, and perhaps the mere realization that he could choose another career was enough to obviate the need for actual rebellion. The younger Olmsted accepted, with pain and a sense of helplessness, the senility that would claim his father's last eight years.

By the spring of 1895, the Olmsted brothers had agreed that their father was no longer able to direct work on the estate; in November, John and Charles Eliot officially welcomed Rick into the office informing George Vanderbilt that Olmsted, Jr. was now the firm's representative on the grounds.<sup>19</sup>

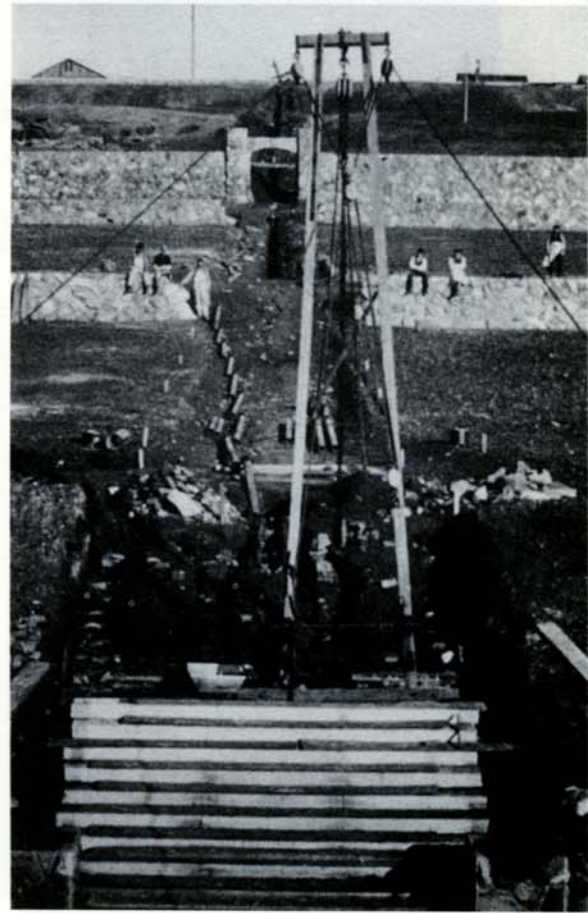


Fig. 14: The walled garden under construction, c. 1891–92.

Manuscript Division, Library of Congress





Fig. 15: John Singer Sargent's portrait of Frederick Law Olmsted, Sr., painted in the summer of 1895.

Biltmore Estate™, Asheville, NC

### *Epilogue*

With Biltmore's house and grounds nearing completion, George Vanderbilt brought John Singer Sargent to the estate to paint its owner and two creators, Olmsted and architect Richard Morris Hunt. Olmsted departed Biltmore for the final time before his portrait was complete, and Sargent took advantage of the physical resemblance between father and son in "presence, build, and shape of head and hands" to ask Rick to stand in while the artist finished.<sup>20</sup> Olmsted, Jr., donned his father's clothes and posed for Sargent on three or four occasions. This event provides an apt symbol both of Rick Olmsted's resolution of his personal and professional conflict with his father and of the transition of leadership within the family firm to the Olmsted sons. At Biltmore, Rick Olmsted confirmed his career choice and reconciled himself to the inevitable identification and comparisons with his father. Indeed, for the rest of his life he took pride in acknowledging his professional legacy, fondly quoting his father and often citing Olmsted's influence on his own work.

A half century later, nearing the end of his own career, Frederick Law Olmsted, Jr., reflected on his time at Biltmore. He understood that his father had pushed him so relentlessly because "he himself, and most of his partners in landscape architecture had been less personally expert than he could have wished." The younger Olmsted also acknowledged that his father had been correct in his assessment that his son had inherited "from him certain traits of mind that had made it difficult or impossible for him—and made it so for me—to become highly expert" in the same areas." Most especially, this failing was "in the field of taxonomic botany, and of plant-growing... symbolized by the 'green thumb' of born gardeners."<sup>21</sup>

Like his father, Frederick Law Olmsted, Jr.'s artistic gifts, visionary outlook, and administrative skills enabled him to overcome any technical deficiency. Clearly he did achieve what his father had so devoutly desired. With his appointment in 1901 to the McMillan Commission, which established the design for Washington, D.C.'s monumental core, the younger Olmsted began a half-century of leadership in the fields of planning and landscape design. Olmsted, Jr.'s unique combination of talent, preparation, and family legacy provided the cornerstone for a career which continues to offer both inspiration and practical guidance for today's planners, designers, and environmentalists.



## Notes

1. Frederick Law Olmsted to Frederick Law Olmsted, Jr., 1 August 1895 [sic], Frederick Law Olmsted Papers [hereafter cited as Olmsted Papers], Manuscript Division, Library of Congress, Washington, D.C. This letter is misdated on the first page; a postscript is correctly dated 1894.
2. FLO to FLO, Jr., 23 December 1894, Olmsted Papers; FLO, Jr., to Philip Sharples, 4 January 1894 [sic, actually 1895], Olmsted Associate Records (hereafter cited as Records), Series H2, Letterbook 3, Manuscript Division, Library of Congress.
3. Laura Wood Roper, *FLO. A Biography of Frederick Law Olmsted* (Baltimore: The Johns Hopkins Press, 1973; paperback edition 1983), p. 338. Roper, who had the cooperation of FLO, Jr., in preparing her biography, dates the name change to about age four, presumably on the recollection of FLO, Jr., himself. Melvin Kalfus's more recent study, *Frederick Law Olmsted: the Passion of a Public Artist* (New York: New York University Press, 1990) cites letters written by FLO as late as 1876 that still refer to his son as "Henry," which would place the name change at about age seven. See Kalfus, p. 81.
4. FLO, Jr., to William Partridge, 18 June 1949, National Archives, Washington, D.C., Record Group 328, Box 105, File "Partridge-Personal Experiences,"; FLO, Jr., to Edward Bok, 10 June 1922, Records, Series B. Job File #7029; notes prepared 20 April 1902 for Harvard Alumni Bulletin, Records, Series B. Job File #2919.
5. FLO to FLO, Jr., 1 August 1894, Olmsted Papers.
6. FLO to John Charles Olmsted (hereafter cited as JCO) 25 February 1894; FLO to FLO, Jr., 29 July 1895, Olmsted Papers.
7. Olmsted to Olmsted, Jr., 29 July 1895, Olmsted Papers.
8. FLO, Jr., to Philip Sharples, 4 January 1895, Records, Series H3, Letterbook 3.
9. JCO to FLO, Jr., 2 December 1894, Records, Series H6.
10. FLO to FLO, Jr., 1 August 1894, Olmsted Papers. The Arboretum was the one significant part of Olmsted's plan for Biltmore Estate that was not realized.
11. FLO to FLO, Jr., 23 December 1894, Olmsted Papers.
12. FLO to FLO, Jr., *ibid.* Emphasis in the original.
13. FLO to FLO, Jr., undated [1895], Olmsted Papers.
14. FLO to FLO, Jr., 23 December 1894, Olmsted Papers.
15. FLO, Jr., to FLO, 1 January 1895, Records, Series H6.
16. *Ibid.*
17. FLO, Jr., to FLO, 31 January 1895, Records, Series H2, Letterbook 3.
18. FLO to FLO, Jr., undated [1895], Olmsted Papers. One of their shared "weaknesses" was colorblindness. Both Olmsteds had a "subnormal sensitiveness to red." See Olmsted, Jr. to Laura Wood Roper, 10 October 1948, Records, Series B. Job File #2964.
19. JCO to FLO, Jr., 6 November 1895, Olmsted Papers. Olmsted's salary was \$1200 a year.
20. Roper, *FLO*, 467.
21. FLO, Jr., to Laura Wood Roper, 10 October 1951, Job File #2964, Frederick Law Olmsted National Historic Site, Brookline, Massachusetts.





Founded in 1980, the National Association for Olmsted Parks (NAOP) is a national network of volunteers and professionals, working to promote and protect the Olmsted legacy. NAOP is a non-profit membership organization.

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