Welcome to the second thematic issue of CRM dedicated to cultural/historic landscapes. This edition has been prepared in conjunction with the first International Symposium on the Conservation of Urban Squares and Parks to be held in North America (May 12-15, 1993) and includes 14 contributors from across the United States and Canada.

The past decade has yielded significant advancements in the park conservation and landscape preservation movements. The first “modern” park conservancy, The Central Park Conservancy, was founded in 1980, and many have followed. There has also been a succession of technical publications on the registration, identification, evaluation and treatment of landscapes such as historic parks. Yet a reality check is still in order. As architectural critic Ada Louise Huxtable stated just months ago, “In recent years a shift has taken place in the way we perceive reality, a shift so pervasive that it has radically altered basic assumptions about art and life.... It has instantly recognizable characteristics—an emphasis on surface gloss, on pastiche, on the use of familiar but bowdlerized elements from the history of design, on tenuous symbolism and synthetically created environments... I do not know just when we lost our sense of reality or interest in it, but at some point it was decided that the evidence of the built world around us was not compelling; that it was possibly permissible, and even desirable to substitute a more agreeable product. Once it was decided that reality was disposable, its substance could be revised, manipulated and expanded.”

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A Reality Check for Our Nation’s Parks
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In response to this dilemma, and to provide technical guidance through illustrated project work, this issue of CRM has been developed with a planning and implementation focus. This includes three sections that address: (1) establishing a context for treatment; (2) planning for treatment; and, (3) treatment implementation. The resources included are all parks by definition, but in the very broadest sense. These include park systems (including parks, parkways and boulevard connectors), cemeteries, golf courses, campuses, woodland preserves, village greens and open spaces, and public gardens/estates.

This issue of CRM has also been prepared at the end of an eight month review period for the draft Guidelines for the Treatment of Historic Landscapes. Perusing these comments as they came into our office, and working closely with the individual contributors, there are similar suggestions and concerns that may be summarized in this overview. These are as follows:

1. Establish a historical “context” for landscapes.
   Here the authors had different concerns ranging from the need for historical background materials on the clients and culture (i.e. John and Susan Bixby, the sheep farmers from Maine at Rancho Los Alamitos; or the progressive industrialist John H. Patterson at Hills and Dales); landscape architecture/design styles of the era (i.e., the naturalistic and ornamental styles in 19th century cemetery design at Mt. Auburn Cemetery; a park rustic style, Central Park) design philosophy, career canon and extant legacy of a practitioner or style on the American landscape today (i.e., Warren Manning at Stan Hywet Hall; George E. Kessler or Hare and Hare in Kansas City; and Edward Bennett or Jens Jensen in Chicago).

A natural response to these concerns is the theme study of Landscape Architecture in the NPS, 1916-1942. This is the first National Historic Landmark theme study to deal specifically with historic designed landscapes of any type. In his article, Ethan Carr suggests that the study will “catalog as many examples as possible,” and will then “establish a framework for selecting a group of exceptional park designs that illustrate this aspect of American landscape architectural history.” Carr and others also suggest that establishing the necessary context is difficult due to the “shortage of secondary literature on the history of the American park movement.”

Of the fifteen or so landscapes included in this issue of CRM, five are National Historic Landmarks, eleven are listed on the National Register, with nine having recognized significance in landscape architecture.

2. Adopt and endorse a comprehensive preservation planning process.
   The approach taken by all of the contributors recognized the need to undertake a comprehensive and often rigorous planning process. In Chicago’s parks, Julia Sniderman references the need for a “comprehensive basis to manage the whole system of Park District historic resources and describes a “preservation framework plan” that identifies a landscape’s contributing features and guides sensitive treatment. The Kansas City Legacy highlighted by Cydney Millstein also recognizes this need based on a solid research and analysis foundation. Millstein believes that with such a foundation established, “it is now possible for the custodians of Kansas City’s park and boulevard system to make educated treatment decisions.”

Other authors recognize that at times the process is ongoing. Linda Fardin suggests that “planning for treatment is not an end in itself but a means by which informed decisions can be made.” David Streatfield also agrees, and recognizes that this may at times be a continuing process. In the case of Rancho Los Alamitos, the master plan was actually “adjusted after new archival findings were integrated in the evaluation process.”

3. Recognize that “rehabilitation” is not a dirty word and will likely be the most honest and frequent treatment strategy for landscapes.
   In our dialogue and in the papers that follow, the authors have confessed to reading about successful "period restorations" in preservation or popular culture magazines. However, many of the authors recognize that public parks possess multiple layers of history, and therefore, recommend rehabilitation as the most appropriate treatment.

A sidebar in The Secretary of the Interior’s Standards for the Treatment of Historic Properties, rev. 1992, states that rehabilitation as a treatment may be appropriate: “When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular time is not appropriate.”

With this as an established datum, it is still ironic that several of the authors are uncomfortable with allowing (Reality—continued on page 4)
the term "rehabilitation" to stand alone. Several were compelled to augment with such adaptations as "in the spirit of"; or, with qualifiers in the same sentence, such as "interpretive," "sympathetic," "thoughtful," and "respectful." There is room here still for further acclamation and acceptance.

4. Liaison with allied professionals and community outreach. Do not operate in a preservation vacuum.

As Linda Fardin states, "Whether expressed in a report, developed in a formal master plan, or simply understood by owner, managers, designers, maintenance staff and others involved, it is critical that an understanding of the make-up of the heritage-character (or, character-defining features) of the site and of long-term objectives be shared between all who influence site conservation and development."

Upon a review of the four papers contained under Treatment Implementation, it is clear that the landscape preservation professional must effectively coordinate with allied preservation, design, construction, environmental, and legal disciplines. This includes material conservation, structural, civil, and traffic engineering (Genesee Valley Park); engineering, architecture, and construction supervision (rustic furnishings in Central Park); arborists and horticulturists (Stan Hywet Hall); and, research scientists and biologists (eastern hemlocks in the Hudson Valley).

At Hills and Dales, the project team presented all potential preservation concepts to area residents and affected public organizations. This process not only resulted in a plan that retained historic fabric, and responded to today's users and site context, it also remained faithful and honest to the original client and visionary designer. Today the adjacent community understands the natural and cultural significance of their resource, and are therefore informed stewards.

5. Assume that landscapes are dynamic, and cannot be frozen in time.

Here again there was much consensus, and most agreed that a realistic maintenance and management agenda (one that considers current use and fiscal commitment), was imperative. This was stressed by both Timothy Marshall and Shary Page Berg. These two and others also recommend the need to coordinate with "hands-on" maintenance staff and managers, and suggest that they are included in the planning process. Elizabeth Brabec suggests that we "may wish to recognize and support the fact that change is endemic in rural historic landscapes, and should approach landscapes in a fundamentally different aspect than built resources—landscapes are living, growing and changing entities." Perhaps a broader rationale, as put forth by Fardin, is more universal, "think hard and twice before interrupting the continuity of the time scale."

Finally we should recognize that project work takes a time and fiscal commitment. Sniderman suggests that "it will be years before a new vision for Grant Park can be fully realized." It is important to remember that the same commitment was originally required to design and construct many of these irreplaceable resources; all of the parks included in this issue took between 10 and 30 years to realize, while some are still incomplete today.

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Kansas City's Park and Open Space Legacy

Cydney E. Millstein

In 1914, George Edward Kessler (1862-1923), the brilliant landscape architect who envisioned and designed Kansas City, Missouri's celebrated parks and boulevard system, spoke of the long-term care and preservation of his extraordinary plan. "Its value...as a permanent asset must be properly maintained and can only be when continuous, consistent improvements are made...No portion of the system can be neglected at anytime and if it should be the very material nature of the whole is practically lost..."[1]

For stretches of time, Kessler's warning to the community of Kansas City went unheeded, yet the city now appears committed to understanding and safeguarding their landscape legacy. In recognition of one of the most significant urban networks in the nation, a four-year landscape architectural/historic survey of Kansas City's park and boulevards system was undertaken from 1988-1991. The two-part survey, funded with grants awarded from Missouri's State Historic Preservation Fund[2] to the Kansas City Board of Parks and Recreation Commissioners, is one of the most comprehensive landscape surveys of its kind.

The first survey was a pilot project sponsored by the Prairie Gateway chapter of the ASLA and the Missouri Department of Natural Resources. It includes seven parks and boulevards that were created as part of Kessler's 1983 plan. The Phase I survey, also funded by Missouri's Department of Natural Resources (DNR), covers 60 parks and boulevards that were created as part of Kessler's 1983 plan. The Phase II survey, also funded by Missouri's DNR, covers 60 parks and boulevards planned and implemented during the period from 1893-1940. Both surveys include inventories of landscape features designed and built in conjunction with the system during the same era.

Combined, these two documents provide expansive data useful to the Kansas City Board of Parks and Recreation Commissioners in their "ongoing responsibility for planning, preserving and managing the system."[3] Using these studies as a foundation for future planning and/or preservation activities, it is now possible for the custodians of Kansas City's park and boulevard system to make educated treatment decisions because the designed system has been inventoried, researched and evaluated in its entirety.

One of the objectives of both studies was to document the historic landscapes and their integral historic features "sufficiently to make a preliminary evaluation of their historic integrity and historic significance."[4] Each individual survey, written on an inventory form,[5] is comprised of sections that discuss historical/cultural context, and existing conditions. A rich and diverse combination of archival materials for each inventory was assembled, aiding in the identification and evaluation of each inventoried landscape. These graphic illustrations include maps, aerial photos, atlases and photographs (historic and contemporary), and a succession of design and existing conditions plans. Upon completion of the necessary field work and archival research, it was then possible to evaluate the integrity and significance of individual landscapes and features applying established NPS criteria.

These two studies should be considered quite an achievement for the Board of Park and Recreation Commissioners as they now have an established context in which to make discerning planning practices—fostering the appropriate stewardship of a landmark, city-wide park and boulevard system. Pairing these documents with the draft NPS Guidelines for the Treatment of Historic Landscapes, the overall planning process for the landscape treatments can be and should be more successful.

"The process for making treatment decisions," states the Guidelines, "...requires a keen understanding of the property's history, significance, and existing condition."[6]

(Kansas City—continued on page 6)
Part I: Establishing a Context for Treatment

To illustrate the potential for the Guidelines, a case in point is the most recent ambitious plan to develop Swope Park, Kansas City's regional park serving the entire metropolitan area (figure 2). The current master plan for Swope Park (figure 3), which is based on the physiography of the area, includes both the protection of historic features and accommodates new construction and programmatic requirements. Although work on the master plan for Swope Park began before the survey was completed, an appropriate preservation treatment can best be shaped by consulting and applying the Guidelines.

Before discussing some of the more significant plans for Swope Park, some background information about this historic landscape may be enlightening. Originally designed by George Kessler in 1898, Swope Park now encompasses over 1700 acres and is ranked among one of the largest city parks in the United States. The overall scheme for Swope Park was subsequently refined (1905-1911) by Kessler, and then revised and modified over the next 50 years by various landscape architects, architects and engineers. Following Kessler's death in 1923, the nationally-known landscape architecture firm of Hare and Hare, responsible for many of the major changes in the park, kept the continuity of Kessler's tradition alive.

Swope Park is divided into three main sections by the Big Blue River, a primary watercourse draining the eastern half of the Kansas City metropolitan area. Historic features of this park include woodlands and open fields; park pavilions and shelters constructed of native limestone; marble and granite memorials; golf courses, greenhouses, a zoo and two lakes. While some of Kessler's formal gardens are now extinct, the park landscapes and the vast collection of historic structures and objects convey a strong feeling of the past.

The historic associations with the early designers for Swope Park "should be strongly reflected through the retention and thoughtful interpretation of many of the park's original features," And now that the comprehensive master plan has been adopted by the Board of Parks and Recreation Commissioners, it is hoped that the survey's research and documentation will have further impact on the details of specific project implementation. According to the project's planner, Brian Pieplow, "As the building programs are identified and individual project design studies are undertaken, we can better integrate the historic information that has become available."

(Kansas City—continued on page 9)
Landscape Architecture in National Parks 1916-1942

Ethan Carr

During the first 26 years of its existence, between 1916 and 1942, the National Park Service (NPS) created hundreds of landscape architectural designs for national and (after 1933) state and local park developments. From master plans covering thousands of acres to simple picnic areas and campgrounds, NPS landscape architecture of this period shaped—and continues to shape—the experiences of millions of visitors to national and state parks all over the United States.

The modern character of the development of these parks resulted from major trends in early 20th century American history. The increased availability of reliable automobiles, for example, along with the decreased number of hours most Americans spent working every year, transformed patterns of public recreation in the years preceding the creation of the NPS. After World War I, as automobile ownership skyrocketed, driving became an increasingly common adjunct of outdoor recreation; driving out of the city became an integral part of the two-weekends and the two-week vacations Americans had come to expect. Innovative county and “metropolitan” park systems grew during these years in still undeveloped, scenic areas around cities such as Boston, New York, and Chicago; and unlike the municipal parks of the 19th century, new regional park systems were often accessible only by car. Mountain parks, scenic parkways, public beaches, golf courses, campgrounds, and other park developments were particularly suited to relatively rural areas that were now accessible to increasing numbers of people with automobiles and the free time to use them. By the early 1920s, state park systems were being devised that featured increasingly popular opportunities for outdoor recreation in almost two dozen states.

National parks, under the leadership of the first director of the NPS, Stephen T. Mather, were no exception to the dramatic changes occurring in the evolution of the American park. In the 19th century, for example, a visitor to Yellowstone typically arrived by train, stayed in a fine hotel, and saw the park from specially provided horse-drawn vehicles that rode on carriage drives designed for this limited traffic. The early 20th century visitor, in contrast, increasingly drove to the park, camped out, and controlled his or her own itinerary for seeing the sights. These more numerous (and more middle class) tourists needed campgrounds, parking lots, decentralized conveniences, and well paved park drives with frequent scenic overlooks, modernized alignments, and increased lane widths. The public’s use and perception of national parks were changing radically in the 20th century, and new pressures were put on existing park landscapes.

Mather sponsored new policies for national park development that acknowledged the changing times. Whether it was inevitable, or a result of Mather’s policies, the annual number of national park visitors climbed during the 1920s from hundreds of thousands to millions. Accessibility by automobile facilitated this popular interest in national park scenery, and the accommodation of these vehicles and their occupants figured in the landscape architectural designs being devised. Landscape architects and engineers were able to draw on already strong traditions of American park and parkway design, while also innovating. They established guidelines and policies consistent with the NPS mandate (as stated in the 1916 National Park Service Act) to both conserve park resources for the future, and to develop them for the present enjoyment of an ever larger public. Under Mather’s directorship, from 1916 to 1929, the national parks evolved from a gallimaufry of scenic wonders, to a modern system of increasingly accessible parks, developed along system-wide management policies and design aesthetics.

By the mid-1920s, landscape architect Thomas Vint (figure 1) and other NPS landscape designers had initiated a characteristic style of park development that responded to the practical necessity for modernizing parks, and that was inspired by the national park landscapes themselves. The landscapes and structures they designed maximized the use of local and native materials, and stressed traditional, or “rustic,” construction techniques. Park developments of this era—which are still to be found from Mesa Verde, to Yosemite Valley, to Mount Rainier—helped establish a popular image of national parks that persists today. NPS landscape architects also developed master plans for entire parks, which outlined a unified approach to the development of roads, trails, and other facilities, while carefully respecting the reasons people visited national parks in the first place: the extraordinary, undeveloped, and relatively undisturbed scenic views. By the end of the 1920s, Mather, with Horace M. Albright (his assistant and later successor), and the NPS designers had built a strong, popular image of a national park system. They had accommodated greatly increased numbers of visitors through the

(National Parks—continued on page 8)
development of campgrounds, administrative compounds, modern park roads, and other landscape designs; and they had captured the public imagination through an ambitious campaign of public relations and publicity linked to the image and character of the development of the parks.

If state and local park development was an influence on this early national park landscape architecture, the NPS, in turn, quickly influenced the progress of state and local parks. The broader interests of the NPS were, in fact, never limited to the national parks themselves. Mather helped convene the first National Conference on State Parks, for example, in 1921. He and Albright recognized the mutual dependence of state and national parks in the creation of a park system that could provide a full range of outdoor recreational opportunities. The state park augmented the national, by offering a decentralized network of campgrounds and other facilities (often located nearer to population centers) that would have been inappropriate and intrusive if allowed to dominate the primeval scenery of a Yosemite Valley or Grand Canyon.

Encouraging state and local park development was an important part of achieving a truly national park system; but the greatest opportunities in assisting local park development arrived as a result of the economic disaster of the early 1930s. As Franklin Delano Roosevelt launched his New Deal programs in the spring of 1933, the NPS was in a unique position to provide the technical services and field management that "Emergency Conservation Work" desperately needed. The range and quantity of NPS landscape design services increased rapidly, and scores of formerly unemployed, professional landscape architects came to work in new positions with the NPS. Up to 90% of the membership of the American Society of Landscape Architects were in some way employed by the federal government by the end of 1934. At this point, NPS designers were actually planning and designing state, county, and metropolitan parks; and, of course, they continued to design for the rapidly growing national park system, which experienced an increase in the variety of landscape designs commissions as well as in the quantity. The greatest enhancement of this diversity resulted from the Executive Order reorganization of 1933, in which Roosevelt shifted responsibility for dozens of historic sites, battlefields, and monuments from other agencies to the NPS. These additions constituted a formidable range of park service properties in the East for the first time, and expanded the very idea of what a national park could be; new kinds of landscape plans necessarily followed. By the time the United States entered World War II in 1942, the NPS had provided the landscape architectural designs for dozens of historic sites, national monuments, and other properties that greatly increased the types of designed landscapes that are part of the national park system today.

Many important initiatives of the New Deal involved NPS landscape architects and planners. The design and construction activities they supervised in national and state parks were conceived as part of a wide mandate of national planning for public recreation. The 1936 Park, Parkway, and Recreational Area Study Act asked the NPS to plan a national park and recreation system that would consider the recreational needs of the country as a whole, and that would plan for future recreational uses of public lands generally, not just in parks. New kinds of parks, like the Recreational Demonstration Area, the National Recreation Area, and the National Seashore were designed in the 1930s, often on land that had been acquired in connection with other activities, such as soil conservation or dam construction. And since all of these different types of park and recreation landscapes were to be considered as a connected park system—accessibility still being the key to successful recreational development—a national parkway plan was begun. The Blue Ridge (figure 2) and Natchez Trace Parkways are the best known results of what was originally conceived as a system of recreational parkway corridors linking national parks, seashores, and recreation areas all over the country.

NPS landscape architectural design between 1916 and 1942 resulted in hundreds of varied, interesting, and in some cases nationally significant park landscapes in national, state, and local parks all over the United States. In December of 1992, the Park Historic Architecture Division in Washington began a National Historic Landmark (NHL) theme study of landscape architecture designed by the NPS during these years. This theme study, The Landscape Architecture of the National Park Service, 1916-1942, will consider a wide variety of park landscapes designed by the NPS (or under its management), from park development plans covering hundreds

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Fig. 2. The Blue Ridge Parkway, begun 1935, Stanley W. Abbott, principal landscape architect. Photo by the author.
of acres, to individual picnic areas covering only hundreds of square feet. The study will catalog as many examples as possible in order to document the scope of the agency's landscape design work in these years; it will then establish a framework for selecting a group of exceptional park designs that illustrate this aspect of American landscape architectural history. NHL nomination forms will be prepared for these selected landscapes, following extensive research and documentation of the sites.\(^1\)

The theme study is an important step in recognizing historic park designs as cultural landscapes, and more generally, as cultural resources in national, state, and local park systems. This is the first NHL theme study to deal specifically with historic designed landscapes of any type; of the over 2,000 NHLs that have been designated by the NPS since it acquired that responsibility in 1935 (another permanent legacy of the New Deal), only a handful of landscapes have been designated because of their significance in the history of American design.\(^2\)

One reason for this paucity of landscape architectural landmarks is the shortage of secondary literature on the history of American park design (especially of the 20th century) to provide a thematic context for the nominations. Without an adequate historic context in which to consider these landscapes, it has been difficult to assess the potential national historic significance of individual examples. Landscape Architecture of the National Park Service, 1916-1942 will include a thematic essay on the history of park design and landscape architecture in the early 20th century, in order to illustrate the potential national significance of individual park landscapes, and to establish a basis for comparative analysis within the category.

Because of the large scope of this theme study, the need for a thorough contextual essay, and the limited time and funding for the project, the number of NHL nominations completed will only be a fraction of the number of potentially eligible park landscapes. The thematic context and research provided by The Landscape Architecture of the National Park Service, 1916-1942, however, should facilitate future nominations, and should help establish national significance for some examples by providing the thematic context in which nominations may be made.

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1. If you would like more information about the theme study, or would like to offer advice or suggestions, please contact the author at 202-343-8148.

2. Although "Landscape Architecture" has appeared as "Theme XVII" in the Thematic Framework of American history devised by the National Historic Landmarks Program, it has yet to be divided into subthemes, or to receive an overall theme study.

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Project Work in Chicago’s Historic Parks

Julia Sniderman

Between the 1830s and the 1930s, 22 separate local agencies emerged in Chicago to create and manage parks. Over the century, the large number of administrations, diverse communities served, and differences in program and service expectations generated a collection of venerable and socially responsive landscapes. Among the renowned figures who contributed to this legacy of park designs were Frederick Law Olmsted; Olmsted Brothers; William Le Baron Jenney; Jens Jensen; Daniel Burnham; and Edward Bennett. The Depression necessitated consolidation of the separate agencies into the Chicago Park District, and federal funding resulted in new parks as well as the expansion of parklands along the lakefront. While the WPA inspired some notable design work, it also brought large sums for modernization, short deadlines and many untrained laborers into park service, and an era of insensitive treatments to historic resources commenced. The recreation movement, improper maintenance practices, shifting patterns in neighborhoods, vandalism, and attempts to provide better security by removing vegetation, collectively undermined the integrity of Chicago’s historic parks. Fortunately, the 1987 discovery of a cache of original plans, photographs and drawings in a sub-basement vault beneath the Park District’s headquarters inspired a new preservation ethic. An internal landmarks ordinance was adopted by the Park District’s Board of Commissioners. The discovered materials became the core of an archive, a preservation division was established, and by 1989 it was incorporated into a new Office for Research and Planning.

The Chicago Park District’s landmarks ordinance served as the foundation of the new preservation program. Although it provided criteria for evaluating significance, standards for evaluating integrity and triggers for the review of repairs, alterations, and design projects were not addressed. A planning grant from the Illinois Historic Preservation Agency for “A Model Preservation Plan for Chicago’s Historic Parks,” helped create a comprehensive basis for managing the whole system of Park District historic resources, as well as a methodology to generate intensive studies of individual parks. The project, which also developed methods for evaluating integrity, was guided by the National Register Bulletin #18, How to Evaluate and Nominate Designed Historic Landscapes. It included a layering of archival research with field evaluation. The work resulted in a National Register multiple property listing that established the context for approximately 80 historic parks, and four intensive case studies. These studies generated historic district listings which complement the multiple property listing.

Simultaneously, triggering mechanisms for the internal landmarks program were created, allowing for the formal review of proposed work to significant properties. The methodology has subsequently been applied to other parks, and additional nominations have been developed. This process is also instrumental in preparing a preservation framework plan that identifies the landscape’s contributing features and guides sensitive treatments. As rehabilitation protects historic character while allowing for additions and alterations accommodating contemporary and future uses, it is generally the most appropriate treatment for urban parks. The rehabilitation approach is particularly amenable to properties that reflect many layers of history because it encourages the retention and preservation of features representing all of

Fig. 1. Print from handpainted glass lantern slide, showing northern portion of Grant Park, 1928. Courtesy Chicago Park District Special Collections (CPDSC).

Fig. 2. Construction of balustrades, rostral columns, and other ornamental concrete in Grant Park, 1916. Courtesy Art Institute of Chicago.

Part I: Establishing a Context for Treatment
the significant periods in the landscape's evolution. Historic parks that have never had a single comprehensive plan but rather partially completed projects conceived by a variety of important designers are the most difficult to analyze.

An example of a landscape that has a multi-layered history is Grant Park, one of Chicago's oldest, most prominent and formal landscapes. The park has been the source of intense public interest since the first parcels of land were set aside in the 1830s, soon after the closing of Fort Dearborn, a federal outpost that had opened in 1803. As early as the incorporation of Chicago in 1837, residents held town meetings to insure the protection of the lakefront property as open space. A small portion of lakeshore property was dedicated as Lake Park, and on its plat was marked a phrase that became a guiding principle: "Public ground forever to remain free of buildings." Coping with lakeshore erosion challenged this principle early on. In exchange for the construction of a breakwater, the Illinois Central Railroad was allowed to build a train trestle in the lake across from the narrow rectangular park. After the Chicago Fire of 1871, a place for dumping debris and rubble was needed, and the area between the train trestle and the park became landfill. This was the first of many landfill extensions to the park throughout its history.

After the early fill projects, no landscape improvements were made, and by the 1880s the park had become an unsightly strip of garbage dumps and wooden shacks. Aaron Montgomery Ward, who owned a mail order business with headquarters across the street from the park, launched the first of several lawsuits initially intended to clean up the park and later to prevent the construction of buildings on the property. Between the 1890s and early 1910s when the site was transferred to the South Park Commission and renamed Grant Park, it attracted the attention of important designers and civic organizations, including Peter B. Wight of the Municipal Improvement League and Daniel H. Burnham as part of his work leading to the seminal 1909 Plan of Chicago. Although the different schemes were set forth for public scrutiny, throughout them all, a design idiom derived from the French Renaissance was consistent.

Envisioning the park as the cultural and intellectual heart of the city, Burnham recommended the Field Columbian Museum of Natural History as its centerpiece, and the Olmsted Brothers were hired to develop landscape plans in accord with this intent. Ward's litigation prohibited the construction of any buildings in the park; however, by 1912 a compromise was reached and the museum was accommodated by creating new fill at the southeast edge of the property. As the earlier plans were no longer feasible, Edward Bennett, who had been Burnham's protege and co-author of the 1909 Plan of Chicago, was hired in 1915 to begin developing new plans for the park. Bennett remained true to the French Renaissance idiom and placed the Buckingham Fountain, a grand bronze and marble monument, as the focal point of the grand formal lakefront axis. Bennett's planning work extended into the 1920s; however, the Great Depression halted some of its implementation. The late 1920s and early 1930s also fostered Art Deco elements particularly during the preparation of the 1933 Century of Progress World's Fair held in the adjacent Burnham Park. There were also WPA improvements, but several aspects of the landscape were never completed. Between the 1950s and the 1980s, accommodations for the automobile, pressures of numerous programs including the city's largest festivals, and the decline of vegetation due to the devastation of Dutch Elm disease and failure to maintain formal plantings diminished the integrity of Grant Park.

These problems are now being addressed by a community-driven master planning process that has generated a new set of design guidelines for Grant Park. The guidelines, which focus upon park boundaries, programming, land uses, new structures, accessibility, reforestation, and over-riding design principles recognize the extraordinary historic significance of the park. A preservation framework plan serves as the foundation of the design guidelines. Creating this framework plan, however, proved difficult, due to Grant Park's evolutionary character, unfinished areas and features, and loss of historic fabric. In order to successfully grapple with these issues, a historic template concept was developed. The template provides a framework that respects not only the park's existing historic features, but also the various designs.
associated with the landscape over time. While the device can best be understood as an aggregate historic plan laid over the current park, the template is three dimensional. It recognizes the often subtle spatial qualities of the park, including the definition of room-like spaces, terraced parterres and sunken lawn panels, important views and historic relationships between features.

The intensive process of archival research and field evaluation provided an understanding of the various design intentions for Grant Park, and the degree to which each plan was realized. The significance and integrity of existing historic features including structures, paths, views, and vegetation were evaluated. The template specifies existing features for preservation and rehabilitation, missing features for reconstruction and revegetation, and areas or features for reinterpretation and new design. Reinterpretation is recommended to reinforce and respect formal axial relationships and design intentions without creating a false sense of history. There are areas of the landscape that do not retain historic features or never had them. These are identified in the template as appropriate areas to accommodate contemporary and future park programs through compatible new design.

The primary objective of the historic template is to recover the park's historic character and where appropriate, to extend the traditions of its design.

In order to better illustrate the template concept, the Fountain Table and Court of Presidents, which is one of the most historically significant areas of the landscape, provides an example. This area's prominence and importance of its lakefront views became apparent early in the park's history when Ward launched his campaign to keep Grant Park open and free of buildings. Though Burnham's plan for a neoclassical museum building on this site was not implemented, his vision of this as the formal focal point of the landscape was realized. Plans by Edward H. Bennett and in-house South Park Commissioners between 1922 and 1929 guided the original construction of the area. As there is not a comprehensive plan that was fully implemented, the series of plans was analyzed and implemented aspects were documented.

The monumental fountain was placed on axis with the grand entry to the park, in the center of an elevated plaza, edged by parterres and lawn panels. At a slightly lower level, on the north and south sides of the Fountain Table, two additional parterres were created, each composed of four triangular sections. Extending north to south, a formal path separated the parterres, provided framed views of the fountain, and reinforced the cross axis. Throughout the years, the parterres and panels on the Fountain Table were reshaped, and replanted according to additional plans several times, and the cross-axial
paths were filled with rose beds. The analysis identified the original configuration of the spaces and determined that the pattern of parterres and panels was maintained through the 1930s. Some of these were later modified, and the historic template directs the re-articulation of these spaces and reintroduction of the north-south axial path. The interior panels of the parterres which bracket the corners of the Fountain Table plaza never followed any of the significant plans, and were modified and replanted many times. In this case, the interior of the panels are afforded flexibility for new planting schemes in the historic template.

The Court of Presidents lies between the Fountain Table and the park’s grand formal entry. The overall space was meant as a symmetrical composition in which two monumental sculptural figures would mirror each other across Congress Parkway, the landscape’s major axis. Bennett’s plans, which included paved rectangular plazas between two semicircular sculpture settings were only partially realized. The extreme north side of this composition was completed with Augustus St. Gauden’s bronze “Seated Lincoln” on a semicircular classical marble exedra by Stanford White. Additional plans for the Court of Presidents by the South Park Commission in the late 1920s included formal reflecting pools as the treatment between the proposed sculptural works. This proposal also remained unimplemented. A system of paths, sunken panels, floral plantings, and Elm trees were installed during the WPA on both the north and south sides of Court of Presidents. Though this was not conceived as a comprehensive project, and the composition continued to lack a second monumental sculpture, these elements were configured in a manner that was consistent with both Bennett’s and the South Park Commission’s plans. The historic template recognizes that the formal landscape elements installed during the WPA are significant, but were never complete. The area is deemed appropriate for rehabilitation and reinterpretation. The existing historic features will be rehabilitated, and new features such as the south monument and contemporary interventions will be designed in a manner respectful to the formal design intentions without creating a “fake historic” appearance.

While it will be years before a new vision for Grant Park can be fully realized, recent planning efforts have already made an impact. The park has received individual historic district status on the National Register of Historic Places. The template has already played a role in projects currently underway, such as the Spirit of Music, a bronze sculpture and bas relief exedra. Though the memorial was originally dedicated in Grant Park in 1923, the bronze figure was moved three times in the park’s history, and separated from its granite exedra which was eventually discarded in Lake Michigan. Several years ago, the granite pieces were rediscovered among a stone revetment, and were retrieved. The current project has included the conservation of the bronze figure, and reassembly and restoration of the granite setting. As the bronze figure’s latest location was extremely inappropriate, and all of the earlier locations are no longer feasible, the template was used to identify an appropriate permanent location for the sculpture, and guide the design for its new landscape setting. The template concept has not only helped the preservation planners to deal with an ambiguous historic resource, but it has also educated the designers and the community on how to achieve sensitive rehabilitation in landscape of significant, but unfinished layers.

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Fig. 7. Photo of Theodore Thomas Memorial with original bas-relief setting, c. 1925. Courtesy CPDSC.
Assessment Strategies for Canada’s Historic Sites

Linda Dicaire Fardin

Planning for treatment can be reactive—born out of a crisis—or it can be strategic—developed with the understanding that the short and long term care of historic fabric, on recognition, on the willingness to protect, on timely and appropriate intervention, and not least of all on the availability of resources, human, financial or otherwise. Generally speaking, strategic planning should result in an accepted definition of long-term objectives so that daily decisions build upon one another and are compatible with the aims set for the site. Whether expressed in a report, developed in a formal master plan, or simply understood by owner, managers, designers, maintenance staff and others involved, it is critical that an understanding of the make-up of the heritage character of the site and of long-term objectives be shared between all who influence site conservation and development.¹

Strategic planning depends to some degree on processes of a macro scale whereby landscapes of similar types are compared in order to assess their degree of significance. The Canadian Historic Sites and Monuments Boards, for example, evaluates the national historic significance of historic landscapes.² The English Register of Historic Parks and Gardens also places in three ascending categories of importance parks, gardens and landscapes. Criteria associated with historical and aesthetic importance have traditionally influenced the assessments of designed landscapes;³ however, there is a growing movement toward examining their value(s) from a broader cultural perspective. In hand with this phenomenon is an increase of awareness of other types of cultural landscapes such as those which result from gradual evolutionary processes—settlement, for example—and such as those who have associative values by virtue of the powerful religious, artistic or cultural associations of the natural element.⁴ In these cases historical and aesthetic criteria may have a lesser or different influence in the overall assessment of cultural value.

Macro evaluation helps to identify sites of greater significance, and to rank those of lesser significance accordingly; ultimately, it provides the means to recognition and a tool for the decision-making process associated with the allocation of resources. In principle, sites of the greatest significance should become the objects of greater recognition and of the most rigorous protection and care. In practice, this is unfortunately not always the case.

In the name of progress, of evolution and sometimes in the name of art, a number of historic landscapes are forced into submission—forced out of a hundred or more years of continuity, into unjustified, disconnected change. This phenomenon is particularly damaging when it occurs in association with landscapes that have a very high cultural value or which possess some unique character.

Pressures of change constantly challenge historic landscapes to justify their importance and their level of protection. Given the momentum in growth of public concern for environmental quality and sustainable development, we can hope that it is only a question of time before the onus is placed on change to demonstrate its necessity.

The thinking about historic landscapes has already dramatically increased in sophistication in recent years; however, in some ways it remains archaic. Today, anyone dreaming of threatening the beautiful neo-gothic elevation of the east block of Parliament Hill with a picture window would soon meet with ardent criticism but so-called landscape “improvements” are carried out without much remonstrance. This happens because there is a lack of appreciation of the short- and long-term consequences of seemingly innocuous interventions of the heritage character and authentic fabrics of a historic landscape.

Lawns illustrate this well as they seem to be particularly vulnerable to the inclinations of those who cannot look at a piece of lawn without wanting to put something in it—statues, sculptures, fountains and flower gardens being favourite offenders.

Macro-evaluation may be a useful mechanism to identify and compare significant historic landscapes, but it has limited application thereafter as far as site specific conservation strategies are concerned. Clearly other tools are required to make site-specific decisions in an informed and thoughtful manner. It is one thing to recognize that a landscape is historically or culturally important; it is quite another to identify what is important about it, what is the tangible evidence that

Fig. 1. Rideau Hall, a Canadian National Historic Site, September, 1918. Courtesy Public Archives of Canada.
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- Specific recommendations addressing the quality of each distinct zone from a historic, aesthetic and functional perspective.
- Specific recommendations addressing the visual and functional relationships between spaces.
- Specific recommendations addressing the quality of hard and soft fabrics from a historic, artistic and functional perspective.
- Specific indications of the high, medium and low priorities including the need for additional studies, and of the urgency of the prescribed conservation treatments.
- General cost estimates of the human and financial resources associated with the carrying out recommendations.

Assessments and recommendations should at all times be directed by the knowledge of historical design and artistic intent(s).

To be useful, the results of the comprehensive study described above need to be synthesized into a management plan and/or master plan where agreed upon recommendations are translated into short- and long-term objectives that are clearly outlined. The master plan should then be ratified and distributed by the approving authority in order to ensure that it provides direction to all parties concerned in future deliberations and interventions. Periodic reviews and discussions are then useful to address new requirements, and to reinterpret and re-express ideas, contentious or not, that contribute to its historical/cultural value.

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The recent proposal to introduce an elaborate contemporary rose garden in the classified grounds of Rideau Hall, a Canadian national historic site, has not been without controversy (figure 1). It provides a useful example to examine some of the thorny issues associated with the integration of new proposals into authentic historic grounds. The new intervention consists of paved footpaths, a water feature, sculptural elements and rose beds placed at arm's length of (not to say within) the well-preserved picturesque wooded entrance park and open parkland.

The location of the new rose garden within the grounds has been contentious because the site enjoys five distinct historic zones, four of which are in a good state...
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of repair from a historical and conservation perspective. In a nutshell, the areas are the wooded entrance park (figure 2), the open parkland, the sugar bush, the ornamental flower gardens, and the former farmland/administrative area, the latter being in the least satisfactory condition. Of these areas the wooded entrance park has been planted and groomed consistently for 130 years as an English picturesque wooded park characterized principally by graceful trees, lawn and elegant drives.

On one hand, it has been held by the proponents of the intervention that it is sensitive and adds a new layer to the site and will provide enjoyment. On the other hand, it has been advocated that this new layer is inappropriate from a conservation perspective principally because of the selected location. That opinion is substantiated by the following reasoning:

- The heritage character of the wooded entrance park is defined by a simple elegance; the ornamental characteristic of a rose garden will upset the heritage character of the wooded entrance park by introducing elements which are a clear departure from the simple elegance of trees and lawn.
- Another area of the site, namely the ornamental flower gardens, already serves an ornamental voca-

Fig. 2. The wooded entrance park represents 130 years of continuous management. View post-1882. Courtesy Public Archives of Canada.

Fig. 3. The Fountain of Hope at Rideau Hall. Photo by the author.

- The character nor the fabric of the wooded entrance park is accidental; it is the result of the deliberate and consistent application of design intent as revealed by historical research going back to 1865 when Lord Monck requested that 400 trees be planted in front of Rideau Hall, to 1867 when another 195 trees were introduced, to 1900 when Lorp Minto directed a number of improvements namely thinning and trimming, to 1905 when Lady Grey embellished the wooded entrance park with a naturalized planting of bulbs, and so on.
- In the broader context, surviving authentic English picturesque estates of such integrity are few in Canada and, therefore, their intrinsic qualities should be preserved for the edification and enjoyment of present and future generations.

Situations like the ones at Rideau Hall give considerable cause for thought. Years ago Catherine Howett, in a study of reconstruction and conservation intervention suggested that none would ever dream of putting the arms back on the Venus of Melos, and so questioned to a degree the merit of reconstructions in the context of historic gardens. That analogy is extremely useful in the context of this discussion. Taken from another perspective, why would anyone modify the drapes of her robe when they are so exquisitely carved? Yet, with historic gardens this happens frequently.

And so the pendulum swings back and forth between the restorer who wants to take the historic landscape back in time and the modernist who wants to give it a new face. Indeed there are cases where either of those approaches may be appropriate. In the case of the designed landscapes which have somehow miraculously come to us in good condition, should we not think hard and twice before interrupting the continuity of the time scale.


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Mount Auburn Cemetery, established near Boston in 1831, was the first landscaped rural cemetery in America and a model for the generation of cemeteries which followed (figure 1). It had a profound influence on 19th century attitudes about death and burial in America and has remained a leader in cemetery design and management. As an early designed public landscape, it was also an important precedent for the 19th century park movement. Prominent social and intellectual leaders buried there link it with practically every aspect of 19th and 20th century American history. Many of the buildings and funerary monuments are architecturally and artistically significant. The horticultural collections are recognized for their range and diversity.

Over the past 160 years, Mount Auburn has not been a static place but an ever changing landscape. The founders stressed the permanence of the cemetery and its potential to soothe the bereaved and inspire future generations. They envisioned isolated classical monuments set in a largely natural landscape. During the 1850s and 1860s Mount Auburn underwent a dramatic transformation as the natural landscape was transformed into a garden cemetery dominated by granite and marble (figure 2). The forest gave way to large areas of turf and bedding plants with only occasional trees. Lots were closely spaced by this time, enclosed by iron fences and later granite curbing, with elaborately carved marble monuments. By the 1870s there was a reaction against the ornamentation of the preceding years. In portions of Mount Auburn developed after that, fences and curbs were prohibited altogether and monuments were minimized as denial of death replaced the sentimentality of the earlier years. By the 1920s, the memorial park concept was introduced with greater density, linearity and uniformity. In some places, only flush burial markers were permitted, a further effort to give the cemetery a park-like appearance.

Thus, Mount Auburn is not a single design but a collective vision which has evolved in response to a changing social and economic context. While there have been many physical changes, there has been a remarkable consistency of purpose and philosophical outlook. The mission statement endorsed by the trustees in 1988 echoes many of the sentiments expressed by the founders: "to commemorate the dead in surroundings of exceptional beauty and refinement."
beauty and tranquility that provide comfort and inspiration to the bereaved and the public as a whole, and to offer comprehensive cemetery services to all faiths at a reasonable cost."

As part of the evaluation process which began with the mission statement, the trustees recently initiated the first comprehensive plan in Mount Auburn's history. They recognized that the cemetery was running out of land and that difficult decisions would have to be made if it was to continue as an active burial ground. The focus of the master plan was on preserving and enhancing the character of the landscape while accommodating multiple uses and appropriate cemetery development. The plan was comprehensive and well documented so it serves as a good case study for testing the draft Guidelines for the Treatment of Historic Landscapes.

The Guidelines begin with a review of the preservation planning process. While the steps are familiar, they are particularly important in a landscape as physically and intellectually complex as Mount Auburn.

Historical research was the first step. At Mount Auburn a thorough understanding of the social and intellectual ideals which shaped the cemetery was as important as documenting the physical evolution of the property. Findings from the historical research were compiled into a detailed historic landscape report. A key part of this was identification of character-defining features within the landscape which generally fell into the categories established in the Guidelines (i.e., vegetation, natural systems, etc.).

Inventory and documentation comprised the second step in the process. Detailed information on Mount Auburn's current physical conditions included evaluation of hydrology, ecology, topography, wildlife, horticulture, cemetery development, access, circulation, parking, structures, infrastructure, signs and visitor use. Special attention was given to understanding subtle aspects of landscape character and spatial relationships.

Analysis was the third step, in which historical material, existing conditions inventory and management needs were combined to produce a summary of key issues. At Mount Auburn these included: scarcity of land remaining for development of burial lots; the density and layout of the most recent interment areas; gradual loss of diversity in landscape character; deterioration of valuable structures; increased demand on limited financial resources and increased pressure for recreational use.

Selection of a treatment is the fourth step in the preservation planning process. At Mount Auburn the proposed actions were articulated in a series of guiding principles and recommendations. The guiding principles recognized the ideals of the founders in creating an innovative cemetery and a place of public refuge and inspiration. They also laid out the essential design ideas governing the character of the landscape and recognized the importance of the cemetery as a historic and cultural artifact and as a sanctuary for wildlife. The commitment to horticulture was reaffirmed. Specific recommendations were made in the areas of: landscape character; cemetery development; access, circulation and parking; use and education; ecology, hydrology and topography; and structures and infrastructure.

Treatment

A landscape as large and complex as the 174-acre Mount Auburn with 87,000 burials, 15,000 monuments, 4,000 trees, 70 miles of paths and 12 miles of roads is more analogous to a historic district than an individual building. Given the many factors involved in planning for and managing such a landscape, rehabilitation (as defined in the earlier papers), is the only logical treatment choice. However, preservation treatment categories established for buildings are limiting in dealing with landscapes. Even the smallest and purest historic site must almost always be classified as rehabilitation because it will probably include accommodations for visitor use such as signage, parking lots and paths which weren't there historically. One way of acknowledging the complexity of a landscape is to identify sub-zones within the primary treatment. These provide for preservation or even restoration of individual features or small areas where there is sufficient documentation and integrity.

At Mount Auburn this concept was applied in the establishment of landscape character zones. One of the biggest issues identified during the planning process was a gradual deterioration of landscape character and a loss of diversity, due in large measure to uniform maintenance practices. To re-establish some of the qualities of the earlier landscape, two distinct landscape character zones were established: the naturalistic and ornamental. The naturalistic landscape (roughly 40% of the cemetery) included areas developed in the early 19th century, typi-
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cally with complex topography and naturally occurring plant associations (figure 3). The ornamental landscape (the remaining 60%) included areas developed later which exhibited more gardenesque or formal landscape characteristics with limited trees, large areas of turf and bedding plants (figure 4). Within each of these zones, a number of sub-zones were delineated. This approach, although often called "restoration" because it uses plant palette and massing appropriate to the historic period, is more accurately characterized as sympathetic rehabilitation because it is a modern interpretation of what existed rather than a literal copying. Factors such as existing conditions and maintenance influenced the design as well as purely historical considerations.

Another example illustrates the way in which a proposed action was true to the ideals of the cemetery, even though it meant a physical change. Central to Mount Auburn's purpose is its role as a public institution, designed to inspire and instruct visitors. However, orientation within the cemetery has always been difficult because of the complex and winding road system. In the 19th century, when visitors toured by carriage, a map provided sufficient guidance. Today visitors in automobiles move at a greater speed. Green lines were recently painted on the pavement to direct visitors along designated interpretive tour routes (figure 5). While some have perceived this as an intrusion, most visitors welcome the guidance provided by the green lines. The lines and accompanying interpretive map allow them to move more easily through the cemetery and to better appreciate what they see along the way.

The detailed planning process was probably the most important preservation tool, as it resulted in a renewed understanding and re-affirmation of Mount Auburn's fundamental purpose. The guiding principles and recommendations contained in the master plan established a series of site-specific guidelines against which proposed actions can be evaluated. In general, the proposed actions at Mount Auburn do meet the guidelines for rehabilitation in that they are based on careful historical research and comprehensive knowledge of existing conditions, preserve existing character defining features and have sound justification while also reflect modern management needs.

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Tomorrow's Parks and Open Spaces Preservation Strategy for Waterford Village

Elizabeth Brabec

Historic rural landscapes are important national resources which are just beginning to be appreciated for their cultural complexity, diversity, and diminishing numbers. As was the case with many of our great urban national and city parks in the first quarter of the century, these landscapes lie on the edges of metropolitan regions and, if preserved, will become important parks and open space for the surrounding communities. New developments are threatening historic landscapes in these areas, landscapes which have long been a defining feature of regional, if not national character. As appreciation for these landscapes increases for their historic and open space benefits, so do efforts to preserve and protect them, a daunting task considering the vast acreage involved nationwide.

The goal of this discussion is not to describe preservation efforts in detail, but to illuminate the application of the draft Guidelines for the Treatment of Historic Landscapes to the specific case of rural historic landscapes. The Guidelines are intended to provide guidance for planning and design professionals in the field in the evaluation of the relative merits of various treatment options. For this discussion, the historic village of Waterford, VA, is used as an example.

Located only 45 miles northwest of Washington, DC, the rural historic village of Waterford (figure 1) stands in the path of encroaching suburbanization. As in many other areas of the state and the country, while the development of new housing subdivisions is on the increase, farming is losing its economic viability. Thus, although the family farm has been a defining feature of the Waterford landscape since its settlement in the 18th century, and has been largely responsible for the preservation of the historic landscape to date, land use is changing to residential homes.

This change in land use and potential loss of historic resources is not unique to Waterford. The same problem and circumstances are occurring across the country as significant historic landscapes, covering vast acreage and held largely in private hands, are undergoing changes in land use. It is clear that we cannot follow the preservation successes of the past in which total buy outs were the answer. The cost in terms of actual dollars and the effects on the local community are often too large.

Thus, our efforts in Waterford were focused on finding a preservation strategy in which preservation interests could coexist with the change inherent in a living and growing community. In order to find ways in which new development can successfully be integrated into historic landscapes, meeting both preservation goals and the economic viability of new development, it was first necessary to define appropriate treatments for the sites.

Historic rural landscapes, as defined by the Guidelines, are "vernacular landscapes that historically have been used by people, or shaped or modified by human activity, occupancy, or intervention, and that possesses a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features." Within this definition lies the notion that historic rural landscapes are based on and are a product of change, the change inherent in a living system. Thus it is somewhat antithetical to define a discrete period of significance for these districts. The period of significance is defined as "the span of time in which a property attained the importance or association for which it meets the National Register criteria." By definition, the entire history of the rural landscape is significant, as are the changes that are being wrought today. It may be possible to argue that too great a change is detrimental; however, at least some level of change is inherent in the landscape.

The first step in planning for the preservation of rural historic landscapes is selecting a treatment. However, barring protection and stabilization which is a temporary treatment, there are only two treatments that can be used in rural historic landscapes: preservation and rehabilitation. These are the only two treatment options which

Fig. 1. The village of Waterford is nestled within a 1400-acre rural historic landscape which is designated a National Historic Landmark. Photo by the author.
acknowledge and allow change in the resource. Restoration and reconstruction treatments are static, do not allow for change and will produce a museum, an effect antithetical to a living and growing rural community and to private and diverse land ownership interests.

In defining a preservation approach in a rural historic landscape, which has a diversity of private interests, two questions must be answered: 1) how much local and landowner support is there for preservation efforts, and 2) what are the priority areas for preservation and rehabilitation? In Waterford local support was high although landowner support was variable for the preservation efforts. Considering that many of the landowners had maintained their farms for generations, it was understandable that the landowners were very concerned with maintaining equity value in their land and the ability to maximize sales price. This did not mean that they were anti-preservation, merely that they were concerned with maintaining the value of their largest asset.

In determining priority areas for preservation, and rehabilitation, the priority areas for preservation are the character-defining features of the landscape. The most important features in Waterford were the spatial relationships of the fields, roads and woodlands, and the viewsheds. These two aspects of the landscape provided the order and context within which the village and surrounding architectural resources were set. Change in these features would produce the most measurable impact on the quality and character of the landscape.

In order to effect a preservation treatment in a rural historic landscape, preservation areas must be slated for acquisition or easement programs. It would be difficult to maintain these lands in private hands, unless it was the hands of a very committed preservationist. Preservation treatments for landscapes require continuous affirmative actions on the part of the landowner: continuous mowing to maintain an open field, proper planting, thinning and maintenance of hedgerows, and planting of the proper crops. It must be realized that a preservation treatment may not be useable for any but the smallest areas of the landscape, and again change may be necessary and even desirable even in preservation. If the goal is preservation of a farming community, it is inappropriate to proscribed particular crops, or even a cropping schedule—viable farming methods and practices change.

Historical farming and land management practices were often not environmentally friendly. In Waterford, a conscious decision was made to encourage the revegetation of swales in fields, and the Catoctin Creek banks in order to minimize erosion problems. This action was not historically accurate, however necessary to improve the stream water quality.

Within the non-critical areas of the landscape, a rehabilitation treatment was used in Waterford to integrate the new land use—housing—with the historic landscape. Again, application of the Guidelines brings forth some difficult issues. As with preservation treatments, it is recommended that “the appropriate form, arrangement, species and character of vegetation” be retained “through regular and cyclical maintenance. For
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example, mowing a field at historically appropriate intervals.... This requires an affirmative act on the part of the landowner, to engage in maintenance which may or may not be enforceable upon new homeowners, or be a viable farming practice. Again, we must allow for change in the landscape, for the movement from beef farming to truck farming, from hay crops to strawberry crops, if we wish to sustain a viable farming community. If we are changing land uses entirely, from farming to housing, a detailed landscape management plan must be developed, one that is manageable as well as sustainable.

The most difficult problem in accommodating new land uses within the historic rural landscape is the problem of accommodating the new traffic generated by the new land use. Invariably, the roads are an important character-defining feature of the landscape, as they are in Waterford. However, roads must be upgraded to allow for increased traffic, and must conform to DOT standards. It is difficult if not impossible in most circumstance to adequately maintain historic curbs, edge materials, historic finish elevation, or surface materials on state roads as required by the Guidelines. In Waterford, the siting and surfacing of access drives was strictly defined in order to minimize their impact on the landscape; however, widening and resurfacing of state roads was not satisfactorily addressed.

The preservation of rural historic landscapes is a difficult task requiring a variety of approaches for which the existing Guidelines can be overly restrictive. As the draft evolves, the Guidelines may wish to recognize and support the fact that change is endemic in rural historic landscapes, and should approach landscapes in a fundamentally different aspect than built resources—landscapes are living, growing and changing entities.

1 Guidelines, p. 4.

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Preservation of a California Oasis
Rancho Los Alamitos, Long Beach

David C. Streatfield

The descent into the airport at Long Beach passes over a bewildering and complex landscape of oil-wells, light-industrial plants, shopping centers, and subdivisions. Conspicuous in its midst is a low hill crowned with a thick plantation of large trees sheltering an old house (figure 1). This small mature oasis is the 7 1/2-acre remnant of Rancho Los Alamitos, owned by the City of Long Beach, which opened the ranch house and its surrounding gardens to the public.

Despite its greatly reduced size, the Rancho Los Alamitos site still evokes the relaxed, unpretentious life of a southern California ranching family in the 1920s and 1930s, when its gardens were created. But the history and existing condition of this site are also a powerful metaphor for the turbulent and exploitative nature of the development of much of the Southern California landscape.

Arcadian visions of a relaxed informal manner of living in harmony with the dramatic Mediterranean landscape were often at the mercy of a relentless pursuit for profit which exploited the landscape as a resource. These opposite tendencies dominated the evolution of this ranch and pose problems for its preservation as a major cultural landmark.

This article will test the application of the draft Guidelines for the Treatment of Historic Landscapes by examining the intended visual relationship between the garden and its outer landscape. A brief summary of the site's history is necessary to establish its character and cultural significance.

Rancho Los Alamitos, which means "Ranch of the Cottonwoods," was established by grants made in 1784 and 1790, totaling 300,000 acres. The name suggests the prominence of the hill with cottonwoods growing around the springs at its base in a predominantly dry landscape. The first structure was a small adobe building built in 1804 for vaqueros and ranch hands. This was enlarged in 1842 by Don Abel Stearns, a rich Yankee trader.

Despite Stearns' considerable wealth his garden was probably very modest in character, since the house was used as a summer home. All that survives is the immense trunk of a pepper tree that he planted on the north side of the house. The garden was certainly not at all like the romantic description contained in Helen Hunt Jackson's romantic and popular novel Ramona (1884).

In 1878, a reduced portion of the ranch was purchased by John and Susan Bixby, sheep farmers from Maine. Their improvements to the area around the house reflect the character of Maine farm landscapes, with a formal entrance garden and long lines of pepper trees along the principal ranch roads, some of which survive.

Susan Bixby's modest gardens on the north and east side of the house were altered and simplified when her son and daughter-in-law Fred and Florence Green Bixby moved to the ranch in 1906. After Susan's death in 1909 the gardens were expanded around the south, east and north sides of the house and within a new curving drive, lined with Canary Island palm trees.

Florence Bixby created and, with the intermittent help of ranch hands, maintained the gardens. They were used as a series of outdoor rooms, in which the family spent considerable time. Using easily maintained rather than rare and exotic plants, these gardens represented a gracious mediation between the private realm of the house and the working ranch lands. This was considerably increased after 1921 when Florence Bixby created an additional layer of gardens outside the driveway. This second series of gardens includes a formal rose garden, the geranium walk, a long formal viewing terrace, an enclosed garden known as the 'friendship garden' which contained plants given to her by her gardening friends, a desert garden of cacti, a garden of California native plants, and a long terrace facing east and planted with Jacaranda trees.

Florence Bixby's creative energies were poured into these gardens and express very clearly the reactions to a working ranch of a rather shy and romantic city-bred woman. It is clear that she did not wish to involve herself in the messier aspects of ranch life, but her gardens were created with a sympathetic regard for the scale of the low rambling ranch house, and reveal delight in the open spaciousness of the ranch landscape, provided that it was not obscured by too many industrial elements. A supreme irony of the gardens is that the creation of the outer layer of gardens was made possible by the profits of the oil discovery at Signal Hill on the ranch. However, the presence of oil wells on the ranch lands ruined the pastoral quality.

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Florence carefully screened out these visual obstructions by planting an avenue of oleander trees below the geranium walk, and in 1936 a semicircular garden at the end of and below the rose garden was designed by Florence Yoch to screen out more oil wells.

The gardens thus had a considerable diversity and labyrinthine character in which introverted garden spaces were devoted to specialized collections of plants, and viewing terraces provided carefully screened panoramic views out over bean fields and pasture land. On the west side of the house the pepper-tree lined service drive established a firm line between the barns and house. Thus, by 1936 Florence Bixby had created a series of gardens simple and understated in character that represented what Marion Cran, the English garden writer, referred to as "Old California." In fact, apart from some of the older trees, the gardens were entirely the product of the 1920s, and represented a romantic evocation of a past that had never existed.

In the last decades of their lives Fred and Florence Bixby faced further threats to their beloved home. The federal government and the state of California used eminent domain powers to build a naval hospital and establish the campus of California State University on ranch land. By the time Florence died in 1962 the ranch had been reduced to an area of 150 acres that included the house and gardens, the ranch barns, and surrounding pastures. In 1968 their heirs subdivided the area outside the gardens and barns, which they gave to the City of Long Beach.

In 1987, the Rancho Los Alamitos Foundation, a non-profit foundation that administers the property, initiated a master planning process, which included the rehabilitation of the house and the gardens, and the development of an interpretive program for the entire site. The master plan (figure 2) is intended to distinguish two zones on the site that were fundamental to its historic pattern of uses. The area west of the north-south service drive will provide parking, a visitor center, and access to the rearranged barns that are the sole surviving fragments of the working ranch. Ideally, farm animals would be permanently housed in these structures so that visitors could appreciate the coexistence of ranching activities and the domestic realm of the house and gardens, which was always an important part of the experience of this place. Land use controls, however, limit the presence of farm animals on site to special occasions.

The gardens in the area east of the service road will be rehabilitated to their 1921-1936 character. The garden master plan was based on a thorough analysis of maps,
an extensive collection of historic photographs and family movies, interviews with surviving members of the Bixby family and ranch hands, as well as the resources of the Joan Hotchkis Collection at California State University, Long Beach. Further archival materials in other collections have been analyzed since completion of the master plan, which has been adjusted to reflect these findings. This includes the careful excavation of the native garden, which uncovered the original drainage and irrigation system.

The preservation treatment of the gardens is being undertaken with an unusually complete knowledge of what they originally contained. The draft Guidelines, had they existed when the master plan was being prepared, would have established useful procedures. However, the draft document would benefit from a further discussion of how to deal with critical outward vistas that no longer exist. The 1968 subdivision of the surviving ranch land was undertaken to establish a secure zone around the site and prevent further vandalism to plants, garden sculpture and ornaments. The creation of a gated community of apartments and detached houses has accomplished this goal, but it has also eliminated the views out over pasture land and cultivated fields that were an essential element of Florence Bixby's gardens.

The disappearance of these vistas is the single most important change at Rancho Los Alamitos. Apart from this a visit to this site is a return to the life of the interwar decades. The house retains most of the furniture and collections of rugs, glass and pottery that Florence accumulated in a 64-year period. Missing is the Monet painting that used to hang in the Drawing Room which she left to the Los Angeles County Museum of Art. The rehabilitated gardens immediately surrounding the house will convey the sense of unpretentious and appropriate living that the Bixby family enjoyed. But the visual relationships between the gardens as a civilized domestic realm and the outside ranching landscape was a tension fundamental to the garden experience. It can now only be appreciated by studying historic photographs.

Since Florence Bixby's gardens were adjusted to the changing circumstances of the outer landscape, it can be assumed that had the subdivision occurred during her life she would have redesigned the gardens to screen out these new structures. However, it would be presumptuous to assume how she would have done this.

There are two critical vistas which have been lost as a result of the subdivision, the Jacaranda Walk and the Rose Garden. In both instances high faux adobe walls and fences on the property line establish an obtrusive plane in space, and the upper parts of the house create a further visual obstruction (figures 4 and 6). Comparison with historic photographs emphasizes what has been lost as a result of the new development. The olive trees at the end of the rose garden were planted in 1936 to screen out distant oil wells and now screen out the surrounding houses fairly well. But the next property line is quite close to the Jacaranda Walk. In both cases plants and vines have been proposed to provide neutral background.

Both of these problem areas emphasize the need for a sensitively developed interpretation program, which will clarify the original character and purpose of those parts of the garden where the view out over the surrounding ranch landscapes was of paramount importance in experiencing the gardens.

The contemporary visitor's experience of Rancho Los Alamitos will always be flawed, since it will require an imaginative leap to reconstruct what it felt like to be there in the 1920s. But the tension between an appropriate presence in the ranch fields has been a potent force here since the creation of the outer layer of gardens. However, enough remains of Florence Bixby's highly personal evocation of "Old California" that it still can be appreciated as "an island in time."

Russell Beatty of Martinez, CA developed the master plan with the author as consultant historian.

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Rehabilitation of a Woodland Park
Hills and Dales, Dayton

Noel Dorsey Vernon
Malcolm Cairns

Given that "rehabilitation" is often determined to be the appropriate treatment for a historic landscape, a historic landscape preservation team is still faced with a wide variety of choices as it undertakes a landscape preservation planning process. This was the situation with the three treatment concepts in the master plan for the rehabilitation of Hills and Dales Park, a 57-acre Olmsted Brothers woodland park in Dayton, OH (figure 1).

Hills and Dales Park had been donated to the city in 1918 by progressive industrialist John H. Patterson (president of the National Cash Register Company). The park had once been the epicenter of many projects undertaken by Patterson and the Olmsted firm. Later divided in two by a major traffic artery (Patterson Boulevard) and separated administratively into a woodland park and a golf course, the park had deteriorated. In 1991, a preservation master plan was begun for the park. While our team located substantial information on the history the park, the data (ironically) confirmed that much had changed—and, in fact, that continual change was a significant pattern in the development of the park, which served as a "land laboratory" for many of Patterson's early 20th century social welfare experiments: fortunately, the park's character and some of its historic fabric remained.

The preservation master plan followed these steps: historic documentation and evaluation of significance and integrity; site inventory and analysis; user inventory and analysis; development of three treatment concepts; and master plan and recommendations development.

An important feature of this process was public contact and feedback: this information played a major role in the final master plan. The city surveyed residents, while the team held public meetings as well as sessions with park employees and officials of adjacent municipalities and interviews with police and others.

Again, the site history established the framework for later treatment recommendations. Having completed the history, the team determined that the park had three areas of national significance: 1) its relationship to John H. Patterson and the Industrial Welfare Movement; 2) its relationship to the Olmsted Brothers firm and its place within the broader Olmsted-Patterson plans for Dayton; and 3) its Depression-era construction.

In fact, while the park's era of significance would last from 1901 (when development plans first began) until approximately 1938 (when Depression-era work appears to have ended), many changes within the park occurred during this time as well as during later years.

Components which retained levels of historic integrity included:

1. The strong design relationship between the local Oakwood neighborhood (which contained many Olmsted Brothers elements) and the park.
2. The relationship of the park to the larger city park system (based upon a 1911 Olmsted Brothers report).
3. The provision of both active and passive recreation activities within the park (figure 2).
4. The existence of the picnic camps as integral components of the park landscape (figure 3).
5. The strong distinction between the wooded Hills and the meadow landscape of Dales.
6. Traditional patterns of driving, riding, and hiking with various features/sections extant.
7. New Deal landscape details comprised the primary detailed landscape evident in the park; stone and brick detailing still contributed significantly to the rustic character of the park. However, the park's
water features had been filled in, although some related features and minor structures remained. Given this information and a long list of current user needs, a variety of treatment options were explored. Our original hope had been to restore the park to its 1920s Olmsted-Patterson appearance. However, the draft Guidelines for the Treatment of Historic Landscapes defines restoration as "depict[ing] an appearance that existed during the landscape's most significant period by removing later additions, and rebuilding or replanting other features." Given 1) the lack of a single historic era Olmsted Brothers' master plan for the park and the lack of other adequate documentation, 2) the pattern of continual on-site revision of the park landscape demanded by Patterson and carried out by NCR and the Olmsted firm, 3) the absence of much of the 1902-1920s fabric which is known to have existed from the Patterson-Olmsted correspondence, and 4) the division of the site into a park and a golf course, we concluded that it was neither appropriate nor feasible to do a strict restoration of the park to the historic Olmsted-Patterson era.

Our second option was to restore the park to its 1930s-era appearance. This too proved inappropriate based on the limited documentation for this era. It was eventually concluded that rehabilitation was by far the most appropriate and feasible option for the treatment of the park so as to keep its remaining historic form and character, while adapting it to the needs of current park users. The Guidelines defines rehabilitation as "retain[ing] the landscape as it has evolved historically by maintaining and repairing historic features, while allowing additions and alterations for contemporary use." Historic fabric would be preserved, historic views and vistas that were known to have existed could be reopened and historic paths rehabilitated. At the same time, current park needs which were in keeping with the Olmsted-Patterson intent for the park (such as a nature center) might be incorporated under this option. Additionally, this would allow for the major change in use of the "meadow" portion of the original park and for the current division between the woodlands and the meadows occasioned by the growth of the golf course. The park's historic (and missing) Adirondack campsites, no longer appropriate for today's users (due to fire hazards and maintenance problems) could be replaced by sympathetic structures and the incompatible 1960s structures removed (figure 4). The vegetation management plan developed by John Harrington also would be suitable for a rehabilitation treatment. The site history had shown us a park in flux, whose raison d'être was public recreation and pleasure, not fixity of design. Documentation proved that the overall woodland character and the current and proposed woodland uses for the park (notably walking, jogging, and nature study) were a match for the project's historic intent. Thus, existing site character (minus invasive vegetation and other non-contributing low-maintenance-budget-related features) as well as the current user inventory could legitimately help guide the "rehabilitation" treatment recommendations—permitting our overall direction to be to maintain the park's historic intent, character, and fabric while avoiding a false "restoration" of a park whose woodland essence was intact or repairable but many of whose human-made character-defining features had been long-since altered, removed or replaced.

Fig. 3. Typical picnic camp, ca. 1915. Courtesy City of Dayton.

Fig. 4. Incompatible 1960s campsite structure. Vernon and Cairns, Ball State University, Department of Landscape Architecture, 1992.

Fig. 5. Proposed campsite. Vernon and Cairns, Ball State University, Department of Landscape Architecture, 1992.

(Woodland Park—continued on page 28)
Part II: Planning for Treatment

(Woodland Park—continued from page 27)

Next, three rehabilitation concepts were developed, each with specific rehabilitation guidelines. Rehabilitation Concept One involved "minimal impact" and the least physical and financial effort of the three options. Historic fabric would be repaired, historic trails cleared, and inappropriate park structures replaced with modern, more historically-sympathetic ones. Historic fabric would be retained and repaired. A limited amount of the historic meadows would be cleared of regrowth and maintained. Parking would be created in spaces where historic views and vistas would not be affected, and traffic managed for park safety. However, the overall automobile system would not be changed nor missing historic water features addressed.

Concept Two was called "Almost a Recreation." While a true restoration of the park was not possible, much could be done to repair historic fabric. In addition, the Patterson-era park character (c. 1910-1918) could be evoked through the reinstatement of lost historic park structures (specifically the wooden Adirondack camps and observation pergola) in their close-to-historic appearance. Again, Concept Two could not have been a genuine "recreation": much of the data needed for an accurate recreation was unavailable. However, in this concept the team pushed the limits of the Guidelines for rehabilitation treatment of historic properties: interpretation would have been increased so that site visitors would be sure that the almost-historic-looking camps and pergola were not the "real thing"! The team noted the problems inherent in this approach, including issues of historic integrity and of maintenance.

The premise of Concept Three: "A Historic Park for the Future" was that the context in which the park was envisioned by Olmsted-Patterson had changed greatly. Horse and pedestrian paths, once widened for the use of a few cars, were now much wider, faster, and more dangerous which splintered the park into small woodland segments—thus the concept proposed road closures and the return to historic pedestrian uses of these rights-of-way. Pedestrian needs were no longer met in the "meadow," which was now off-limits to all but golfers; however, other woodland areas had historically been grassy meadows with panoramas, vistas, and campsites: these features could be rehabilitated. While nature study was an historic intent of the park, invasive species and lack of interpretive facilities leave little opportunity for this. Thus the proposal suggested that the largest of the 1960s shelters be removed and replaced by a Nature Study Center. Concept Three accepted that the historic campgrounds and pergola were gone and provided modern-but-historically-sympathetic ways of regaining these features (figures 6 and 7). Again, historic fabric would be retained and repaired. Overall, this concept plan suggests ways in which the park could better respond to today's users and site context, while remaining faithful to the Olmsted-Patterson intents—specifically the intent that the park be a place to experience nature. This plan also promoted the Olmsted's "homes in the park" concept, while preserving the privacy of those local residents who live on private lots bordering the park. Most importantly, the concept rejoined the severed segments of the park.

In fact, this concept was the one most supported by area residents. Given this public support, the City asked that the team develop Concept Three to the master plan level. That plan now has been accepted. The next challenge will be to again apply the Guidelines as the project moves to the design development phase.


2 Guidelines, p.7

3 Guidelines, p.7

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The Rehabilitation of Red Creek Bridge
Genesee Valley Park, Rochester

Patricia M. O'Donnell

Genesee Valley Park is located on both sides of the Genesee River in the City of Rochester, NY, and was initially constructed from 1889 to 1903 under designs by Frederick Law Olmsted and Company, Landscape Architects, Brookline, MA. The construction of the Erie Canal in the early 20th century sliced through the park land. At this time the Olmsted Brothers, Landscape Architects, the successor firm, were called upon by the City of Rochester to resolve the anticipated damage to the park. Not only was the canal to be cut through but the elevation of the river was to be raised five feet, inundating much park land. The related regrading, widening and shaping of Red Creek was a response to the five foot height increase of the water level and to the heavy spring flood flows in this stream channel. The plans indicate a desire to rebuild the park blending the canal into it and providing access across both the canal and Red Creek.

The far-reaching changes to the park at this time are portrayed on an overall park plan that shows the location of all six bridges constructed to provide access over the Barge Canal and the widened Red Creek Bridge. Two Red Creek bridges, Lower Bridge and Upper Bridge, were constructed in 1917 by the Barge Canal Authority under plans developed by the Olmsted Brothers. Of the six bridges, four remain. The remaining Upper Bridge spanning Red Creek is the subject of the preservation work discussed here. The rehabilitation of the Red Creek Bridge began July 29 and was completed November 26, 1991 at a cost of less than $165,000 which is a fraction of comparable new bridge construction.

Planning Process and Treatment Approach

Red Creek Bridge was closed to all vehicular use due to deck deterioration (figure 1). Pedestrian and bicycle use remained possible but deterioration caused some safety concerns. The bridge was a missing link in the park circulation system. Future intent was to serve park pedestrian and bicycle traffic, park service vehicles and occasional public access for special events. The value of the historic design and intent for Genesee Valley Park and its relevance to contemporary life was reestablished in the past decade through both Monroe County and community efforts aided by informed consultants and scholars. A preservation approach to the Red Creek Bridge implemented a component of the updated park master plan and coincided with parallel historically integrated projects addressing the rehabilitation of Moore Road and the Picnic Grove. Project objectives were:

- To retain the original bridge fabric to the greatest extent possible, using the gentlest means possible to clean and remove graffiti;
- To replace deteriorated elements in-kind to match historic ones;
- To repair minor deterioration;
- To serve the intended uses safely.

Local engineers with limited historic structures experience were teamed with a preservation specialist to approach the preservation of this local landmark effectively. Previously conducted historic research on the park as a whole, during the master plan update, formed the project basis. Detailed research of the Red Creek Bridge uncovered Olmsted and Barge Canal Authority drawings, Olmsted correspondence and early photographic and postcard views.

Treatment Implementation

Field reconnaissance of the existing conditions of the bridge and surrounds examined the existing conditions in relation to historic ones. While historic fabric and surfaces had deteriorated visibly over time in selected areas and two spindles are missing from the balustrade (figure 2), much of the facades, parapet...
walls and balustrades remained in good condition. Lack of routine maintenance and subsequent water infiltration over time had caused significant concrete deterioration in selected areas in addition to major deterioration of the bridge deck. Lost material and types of deterioration were identified in five categories, ranging from major losses and unconsolidated concrete, to minor surface losses and surface efflorescence. A range of interventions from removal and replacement to patching and caulking was assigned based on condition. Some areas of minor losses that would not accelerate deterioration were left alone. Original construction drawings were used as a basis for construction documents.

Over a period of four months in the late summer and fall of 1991, the bridge work was conducted. General conditions and project preservation intent were communicated clearly to the contractor. Technical questions relating to matching new materials to existing ones were addressed in the pre-construction testing and in the sample requirements. Cleaning of the concrete surfaces was conducted prior to sample development so that new and recently cleaned surfaces were compared. Two formulas were developed with varied mix designs. Samples were cured for 28 days to harden and obtain final color. Four samples, two each of Type I and Type II mixes with two different aggregates were reviewed. Type I 4,000 lb. Concrete from a local construction company was used to match historic aggregates. PSI Buckshot Concrete ASTM #8, with 3/8” rounded gravel and a surface treatment with a walnut shell blast was also applied. The sample was a very close match with the exception that the color was slightly more gray and the bridge elements more cream in tone. The concrete source knew of no method for achieving a more cream tone, so the sample mix design was used. Railing caps and spindles were to be replaced using the same mix design with a 20% increase in small stone aggregate and a walnut shell blast so that more exposed stone would be visible, matching the existing bridge detail elements (figure 3).

A woodworker created the spindle mold from an existing one in good condition. He also constructed the forms for the solid parapet sections that were removed and inscribed the forms to match earlier plank patterns. The spindle mold was transferred to Monroe County as part of project deliverables for future use as needed.

The areas around the bridge are important to the appearance of the bridge within the park landscape. Invasive trees and shrubs growing at the bridge edge were removed. To reinstate a portion of the historic setting, six trees were replanted at appropriate distances from the bridge. The near surrounding slopes were stabilized with jute erosion control fabric, graded and reseeded to grass, as shown in early views.

**Conclusion**

The connection to the surrounding landscape was unfortunately limited to a very small area adjacent to the bridge which limited creek slope repair and renewal plantings. Some adjacent areas are in a deteriorated condition and are incongruous in appearance next to
the excellent condition of the bridge and immediate surrounds. These areas await a future project (figure 5).

This is one of the most direct and simple projects included in a series of case studies nationwide. It addresses an object within the landscape that was substantially intact and required repair and replacement in-kind. The entire deck was replaced (figure 4) while bridge facades and decorative elements were retained to a great degree. In preservation the identification of historic fabric and retention of it into the future is the underlying goal. This goal of maximum retention was achieved for the Red Creek Bridge. Future deterioration was slowed by replacing the bridge deck and waterproofing it effectively to halt water infiltration. Replaced elements are barely distinguishable from the original ones which was intended and is appropriate for this type replacement in-kind of lost and deteriorated materials. The extensive effort to match the historic concrete was achieved so that only close inspection reveals the differences between original and replacement units although patching is evident it is not highly obvious.

1 Genesee Valley Park was the subject of a master plan update that integrated the Olmsted historic design intent into the planning process in 1989-90. The project was led by Environmental Design & Research, PC with Doug Brackett. Dr. Charles Eliot Beveridge and the author served as historic landscape consultants. Clark Engineers was also consulted. The clients for both projects were Ed Wainer and Owen Butler, Monroe County Engineering and Gary Russell and Forest Shelton, Monroe County Parks. Clark Engineers, Rochester, with Roger Vanderbrook, PE, Dan Duprey, PE, Karen Cox and Lorenzo Rotoli comprised the Red Creek Bridge engineering team. Historic preservation guidance was provided the author. The contractor for the project was Crane Hogan, Jim Crane, superintendent, Rochester, NY.

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Construction and Maintenance of Rustic Furnishings
Central Park, New York

E. Timothy Marshall

By the early 1850s, Americans were increasingly aware of a spiritual and physical distance separating them from nature due to the explosive growth of the nation's cities and industry. Writers such as James Fenimore Cooper, Washington Irving and William Cullen Bryant, and expressed by the Hudson River School painters, heralded a "back to nature" trend in the arts and literature. As urbanization increased in the second half of the 19th century, the city park movement spread. In most cities, land was set aside for the creation of parks to provide recreation and respite from increasing noise and congestion associated with increased urbanization. Americans were also escaping from the cities to more remote areas, now made accessible by improved transportation.

Andrew Jackson Downing (1815-1852) was America's first great landscape gardener. Through his widely read books and many articles in his Horticulturist, Downing popularized the use of rustic work in naturalistic landscapes. Rustic summerhouses or shelters, bridges, seats, and "embellishments," were seen as necessary to enhance a person's experience of a garden landscape. The intended effect was to uplift the spirit through a closer contact with Nature.

Andrew Jackson Downing encouraged Calvert Vaux to come from his native England and become his partner in 1850. Following the death of Downing in 1852, Vaux joined with Frederick Law Olmsted to win the design competition for Central Park. Begun in 1858, it was the nation's first major urban park and was conceived as a naturalistic landscape. Olmsted and Vaux chose the rustic style. The use of unmilled red cedar and black locust trunks and branches complemented their naturalistic landscape design for Central Park. Eventually there were over a dozen rustic summerhouses and numerous bridges, arbors, benches, beehives and birdhouses found throughout the park. Sadly, by the late 1970s most of the park's rustic furnishings were vandalized or removed from the park due to a lack of maintenance and changing tastes.

In 1980, the Central Park Conservancy was founded. The conservancy is a not-for-profit organization that administers the park with the New York City Department of Parks and Recreation. The conservancy's mission is to restore, maintain, and program the city's foremost scenic landmark.

In 1982, the conservancy initiated a comprehensive three year study of the park. Ten in-depth studies (topography, geology, soils, hydrology, drainage, utilities, circulation, vegetation, wildlife, architecture, uses, management and security) of park-wide systems were prepared. The purpose was to analyze the park's condition, problems, and opportunities, and set the course for a comprehensive and systematic rehabilitation and management of its entire 843 acres. The result of the study was, Rebuilding Central Park: A Management and Restoration Plan.

The circulation plan for Central Park was the most innovative aspect of the Vaux and Olmsted plan. They succeeded in creating an illusion of randomness and rural freedom by the creative positioning of curving drives, paths and bridle paths. The bridges, arches, stairs and rustic arbors were crucial to the park's circulation system as were the nearby rustic shelters that emphasized the landscape and provided rest areas to view and
Part III: Treatment Implementation

Rehabilitating the rustic features

Fig. 2. Rehabilitated rustic bridge in the Upper Park’s Ramble, 1980s.

To enjoy the landscape. Rehabilitation of the park’s circulation system required the replacement of the park’s rustic architectural features.

Rebuilding Central Park provides a framework for the implementation of individual projects. Designs must respond to conflicting demands for use, security and maintenance while protecting the historic fabric and quality of the park.

The conservancy, with continuous support from the New York City Department of Parks and Recreation, has developed a skilled and dedicated team of landscape architects, architects, planners, historians, craftspeople and artisans, and horticulturist and restoration work crews to collaborate on designing, building, and maintaining the park. The collaborative effort provides direction to individual design projects and allows for in-the-field exchange between designers and work crews.

Reestablishing Technical Skills in the Park

The complete restoration of Central Park is a complicated, long-term process requiring as many as 200 capital projects. Typically, these capital projects would be large publicly funded long-term projects. Moreover, the public bidding process mandated by the City of New York precludes other than low-bidder contract awards. This allows contractors who are sometimes incompetent or incapable of particularly sensitive kinds of rehabilitation and restoration work to get jobs.

Outside construction contracts are not necessarily the most efficient and economical means of accomplishing projects. Many areas of the park in need of repair remained neglected. They were not large enough to warrant becoming independent capital projects or were too large to be part of routine maintenance repairs. Moreover, the maintenance skills required to maintain these areas of the park had been lost over time.

In 1981, the Central Park in-house restoration crew was formed to address the lack of skilled park maintenance and have the capability to undertake small projects that required historic preservation skills and sensitivity. In effect, it formed an interdisciplinary and multi-skilled work force.

These non-capital projects are of the following kinds of work: (1) rebuilding stone stairways and waterfalls; (2) repairing and rebuilding rustic architecture, boatlandings; (3) repairing masonry bridges and walls; and (4) masonry cleaning.

Any successful program requires the continuous maintenance of newly restored structures completed through the capital program. The crew is also responsible for: (1) monitoring all newly-restored sites; (2) quickly responding to maintenance needs thereby reducing repair costs caused by deferred maintenance; and developing and implementing maintenance programs for newly restored sites.

Any program of preservation and restoration would require the training of a force of workers in the tradition-

(Central Park—continued on page 34)
Training

Training was the most important aspect of the crews formation since the skills no longer existed in the Department of Parks. Training consisted of studying turn-of-the-century how-to manuals. The last remaining original rustic summerhouse, located in the Ramble, was analyzed for joinery and detailing techniques. Advice was sought from Mohonk, located in upper New York state, where a large amount of rustic architecture still exists. In addition, existing drawings and photographs showing detailing and joinery were studied.

Individuals working on these crews have been trained to do more than one job. Supervisors need more flexibility and ease of scheduling than most contractors who must organize the work of various independent building trades. Unlike most refined building styles, the design of rustic work ultimately rests with the builder. Although plans may be produced, the finished work depends on choices that the craftsperson makes when cutting the material, or on site, when the idiosyncrasies of a particular trunk or branch is incorporated into the finished product.

Historically, Central Park has suffered from a lack of regular maintenance. Olmsted realized the importance that maintenance must play if the original design intent was to be sustained. On keeping the park, Olmsted said “The Park Commissioners are trustees and managers for the whole body of owners of a large amount of public property. Their business is of two kinds: first, that of forming parks; second, that of keeping them. The first of these duties employs many more men, costs more money, and makes the larger show to the eye; but the second is the graver responsibility.” Olmsted realized that a park could be constructed, but without ongoing maintenance, the park would cease to serve its original design intent. Central Park is a man-made landscape and requires intensive maintenance to maintain this “naturalistic” intent.

Central Park has developed, through its in-house restoration program and together with the Central Park Master Plan, a method to reintroduce the historic rustic architectural elements and to ensure their ongoing maintenance.

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Management and Treatment of Historic Views and Vistas

Stan Hywet Hall, Akron

Fred J. Robinson

With the help of landscape architect Warren Manning, Goodyear Tire and Rubber Co. founder Franklin A. Seiberling selected the top of the highest location in and around Akron, OH, to build a gracious and elegant home and extensive landscape. Just over the crest of the hill to the north and west, the underlying stone had been quarried long ago. Peach and apple orchards dominated the farm land that F.A. Seiberling bought.

Between 1911 and 1915, Manning designed and directed construction of a landscape that took full advantage of the hilltop site. He and architect Charles S. Schneider collaborated with Mr. and Mrs. Seiberling on siting the house to take advantage of the vistas of the Cuyahoga River Valley to the northwest and rolling hills to northeast, north, and west. Stone overlooks and a pavilion were built at some of the vista vantage points. Other vistas originated from areas designed for lawn sports.

The large Tudor Revival style house was aligned and designed so that one vista could be viewed from within and another completely through the house. The stone quarry was developed into a complex of lagoons and small “upland lakes” that wrapped around almost 90° of arc centered near the northwest crest of the hilltop and about 20' below. This extensive water feature was the foreground of many of the original vistas. These vistas were certainly an integral part of Manning’s historic landscape at Stan Hywet.

After Mr. Seiberling lost control of Goodyear in the 1920s, his great wealth diminished as did the maintenance of the estate landscape until his death in 1955. Maintenance resumed after the heirs sold the estate to the Stan Hywet Foundation. About 1975, the west terrace area was restored. It’s vista was only partially restored as trees had grown to hide new homes. It was not until the early 1980s before invasive trees, brush, and vines were cleaned out to expose the landscaped lagoon area.

In 1983, a master plan was prepared for the restoration of the historic landscape by a landscape architectural firm specializing in such work. It should be noted that the prints of Manning’s landscape plans were never found during the necessary historical research. The master plan strongly recommended restoration of vistas. By the summer of 1986, the Foundation trustees wanted to see what another vista would look like if cut through almost 50 years of woodland growth. They insisted it be done before their early fall meeting. This meant that it had to be done while foliage existed.

A tree service firm with both a consulting arborist and crews experienced in vista work had been doing tree preservation work at Stan Hywet in recent years. They were asked to restore this vista.

The vista that was selected for the “test” restoration was the vista that could be viewed from inside the manor house through the 550' Birch Allee (figure 1), and Tea House Pavilion at the end of the Allee. Dense foliage blocked the view from the pavilion cliff through the lagoon and over the next hill without allowing any sight of the distant hillsides. No one knew what hillside would be exposed so we couldn’t locate the unsightly developments that had been built since the vista’s period of significance. The consulting arborist directing the work required that each tree or branch be shaken before cutting to assure identity and avoid cutting anything that was historically significant or unnecessary.

After clearing the trees that had seeded in on the cliff and in the lagoon area the crew was ready to cut through the dense woods beyond (figure 3). The compass bearing of the vista center line was established from within the Allee. Once an opening was cut through the woods, the distant visual intrusions could be studied by moving away from the vista center line. The last trees that were in the vista were two large old oaks that did not show up in the historic photographs, but some branches now hid unsightly condominium buildings about two miles away.

(Vistas—continued on page 36)
These trees were retained but thinned out to the extent needed to expose the horizon yet still hide the unsightly condominums. The use of powerful binoculars permitted direction of distant work, including fine pruning in these oaks and some sour gums from more than one hundred yards away at the Tea House Overlook.

Budget limits and property lines prevented this “test” vista restoration from being any wider at that time. Because experience has shown that vista restoration through stands of deciduous trees in leaf usually takes so much more work than estimated, along with the uncertainty of unsightly developments, it is recommended that vista work be scheduled when trees are dormant.

Inventory and documentation of plant material and other features within and beside proposed vistas should take place in all seasons prior to scheduling restoration. This is extremely important in locations where there is seasonal change in vegetation.

The trustees were pleased by the “test” vista, as seen in figure 4. The view of the landscaped lagoon from the Tea House exposed a variety of textures and colors. The spectacular early fall color of the long graceful sour gum branches extending out into the vista from one side certainly influenced their decision that fall. They approved additional vista work within a budgetary constraint, and would allow it to be held off until January 1987, during tree dormancy.

This gave the consulting arborist time to study the probable locations of six additional vistas found during previous historical research. Signs of cutting from over 50 years ago helped define some of the vistas.

The two vistas that were selected for restoration would be across Manning’s upland lakes and landscape surrounds. In addition, the West Terrace vista was authorized for rehabilitation. Eleven years of growth into the vista required maintenance pruning. The vistas not selected for restoration went through woods so dense that even without foliage, intrusions into the view could not be determined, and the estimates for cutting through these woods was much higher than those over the upland lakes.

The probable center line of each vista was marked and the trees in the cutting area studied. Both undesirable and desirable species were noted, especially historic ornamental trees near paths and the Pleasure Drive that traversed the hillside.

On the day before the winter vista work was to begin, the consulting arborist brought three tree service foremen to the site with their bucket trucks. Two 52’ trucks were set up on the Pleasure Drive on either side of vista center line, and a 65’ truck was set up in the vista on the lower service drive. With the help of the landscape architect, the consulting arborist directed each foreman to mark the sides and the bottom of each vista with a bright ribbon. This established limits for cutting so as not to expose the recent development now established at the foot of the hill, nor to make unnecessary cuts (figure 2). These limits also framed the view of the Cuyahoga River Valley, now called the Cuyahoga Valley National Recreational Area.

The following work day brought additional workers and equipment. The climbers and ground men of each of the three foremen arrived with additional equipment. A small dump truck with a chipper, additional chippers, a large bed truck with a hydraulic log loader, and a truck with a telescope crane were needed for clean up. The crane had two uses: it could support a climber beyond reach of any of the bucket trucks and could lift entire trees, tops, or logs out of the dense woods or landscape rapidly and without damaging historic plant material or otherwise desirable vegetation.

The extra support assured that there was always arborists up in the vista ready to confirm cuts by shaking and getting the go ahead from the directing arborist. This is dependent on there being enough arborists so that there is always at least one in position to make a cut. The prime job of the several ground workers was to keep the arborists supplied with power saws, both sharp and full of gas and oil, along with any other tools or ropes, as soon as needed. Their secondary job was clean up, including brush chipping and getting logs ready to be loaded and hauled out.

The noise of the equipment and the distance between the director and the foremen necessitated the use of four two-way radios for communications. Head set types were used to keep hands available for use of binoculars or tools. The foremen could then relay messages to climbers in nearby trees or ground personnel.

The January vista work started with an opening along the pre-determined center line. Tree species known for fast growth of water sprouts following severe topping...
were taken out completely so as not to grow back into the vista within the next two to four years, thus extend-
ing the time before the vistas would have to be rehabilit-
ated by maintenance pruning. Slow growing trees were
released from undesirable or invasive competition. (Wild
grape vines were cut to grade, but in the six seasons since
then, they have regrown over many ornamentals. They
should have been dug out.)

Following these guidelines, each vista was then
widened toward the ribbon-marked limits. Before the
limits were reached, large trees were encountered. They
were old enough to have existed during Manning’s work
but would not have been tall enough nor wide enough
then to interfere with the vista. By extensive thinning or
cutting back of these trees, conflicting features of the his-
chor landscape were both retained.
Care had to be taken to avoid chang-
ing the natural shape of the trees, or
making them look “butchered,”
guardless from where they would be
viewed. Where possible, pruning cuts
were made at such a location where
they would not be noticeable, espe-
cially large cuts.

One of the vistas went over the tennis
court built just beyond an upland
lake in the lagoon area. During the
many years of neglect, the court had
become filled with a stand of large
black locust trees. The opportunity
was taken to remove all these trees
even though not all of them blocked
the vista. By so doing, the tennis court
became an identifiable feature of the
Seiberling family’s sporting activities.

As each of these two vistas were
approaching completion, the vegeta-
tion seen below and along the sides of
the view became important. Natural
shapes of tree or shrub crowns had to
form the vista border. The sides could
not be long branchless trunks unless
they were “visually softened” by
branching of adjacent trees (figure 5).
The arborist believed the finished
vista ideally could not exhibit any
signs of vegetation pruning or removals. In fact, the vis-
tas had to look as if there had never been any vegetation
blocking the view.

The rehabilitation of the vista seen from within
the manor house or from both the West Terrace and West
Overlook required the cutting back of 11 years of growth.
The removal of invasive fast growing tree species such as
elm, ash, and tulip exposed hemlocks that had grown
into both sides and the bottom of the vista. The hemlocks
did not date back to Seiberling’s era but were planted in
the late 1950s by the Foundation to eventually hide a new
housing development on former Seiberling land just
below the manor house. In addition, the hemlocks

Fig. 5. Natural edges of a vista after final pruning. Tall
Oxydendron frame the left side with seed pods, which
in fall are yellow against reddish leaves. The fence
framework of the tennis court and the logs from the
locusts not yet hauled away can barely be seen in the
shadows.

screened piles of debris that “arrived” from the develop-
ment. In winter, the hemlocks provided a lovely green
frame to the vista. This was especially nice for visitors
who would not venture outside. All these reasons pre-
cluded the removal of the hemlocks that date to a post-
Seiberling period.

The hemlocks could not be cut back to the width of the
vista’s earlier restoration because the severe pruning
would have resulted in an unnatural and unsightly
shape. The compromise was to cut back the longer
branches and stems and leave shorter ones. Because some
of the hemlocks were so close to the overlook, much of
this fine pruning had to be done with hand snips. Even
small cuts had to be done in such a way so that they
could not be seen. The opening up of the hemlocks from
the top and back would allow light to penetrate and thus
stimulate new growth inside. Future maintenance of this
vista would then permit the hemlocks to be pruned back
to even shorter branches.

This vista had another challenge. When visitors walk
down to the overlook and return,
they go under and beyond large oaks
the vista goes between. Therefore,
these and adjacent ornamental trees
had to be pruned with consideration
of how they would look from close
side, under, and behind.

The oaks actually form a “roof” to
this vista that would not have existed
during the construction of Stan
Hywet. The fact that Manning, a
noted landscape architect with exten-
sive plant material knowledge saved
these oaks (prior to his own practice
he served as the superintendent of
planting with Olmsted, Olmsted &
Eliot) was interpreted to mean he
knew their crowns would grow
together and limit the size of the
vista. This “roof” actually has several
benefits. It cuts down the amount of
bright sky seen and also focuses
attention on the rolling wooded hills
below the distant horizon.

At Stan Hywet, restoration and
rehabilitation of vistas has increased
both new and repeat visitation. In
addition to extraordinary distant
views, visitors now view the paths in
context, through the lagoons, and
around the upland lakes. They also
see the Pleasure Drive disappearing into the distant hill-
side. The spatial composition that was a significant ele-
ment in the Manning design for Hywet has been restored
through this vista management and treatment project.

Fred J. Robinson was the consulting arborist with the tree service
firm that treated the vistas. He has since formed the con-
sulting firm of Fred J. Robinson & Associates, Inc., located in
Kirtland Hills, OH. He serves on the Garden and Landscape
Committee at Stan Hywet.
The Management and Protection of Historic Eastern Hemlocks

Barbara Paca

"The Hemlock is one of the finest and most distinct of this tribe of trees... The average height of the Hemlock in good soils is about 70 or 80 feet; and when standing alone, or in very small groups, it is one of the most beautiful coniferous trees. The leaves are disposed in two rows on each side of the branches, and considerably resemble those of the Yew, though looser in texture, and livelier in colour. The foliage, when the tree has grown to some height, hangs from the branches in loose pendulous tufts, which give it a peculiarly graceful appearance. When young, the form of the head is regularly pyramidal; but when the tree attains more age, it often assumes very irregular and Picturesque forms. Sometimes it grows up in a thick, dense, dark mass of foliage, only varied by the pendulous branches, which project beyond the grand mass of the tree; at others it forms a loose, airy, and graceful top, permeable to the slightest breeze, and waving its loose tufts of leaves to every passing breath of air. In almost all cases, it is extremely ornamental, and we regret that it is not more generally employed in decorating the grounds of our residences....

"It is inexpressible how much they add to the beauty of a country residence in winter. At that season, when, during three or four months the landscape is bleak and cowed with snow, these noble trees, properly intermingled with the groups in view from the window, or those surrounding the house, give an appearance of verdure and life to the scene which cheats winter of half its dreariness".

Say farewell to the elegant eastern hemlock for it has fallen prey to the deadly hemlock woolly adelgid (Adelges tsugae). Historic landscapes are being severely impacted as impressive stands of mature hemlocks are wiped out within a few years by this tiny predator. As early as the time of Andrew Jackson Downing, one of America's first and most influential landscape architects, the eastern hemlock was the tree of choice in creating romantic groves and framing bucolic fields. Downing writes of gardening in the Picturesque Style (figure 1), creating "outlines of a certain spirited irregularity; surfaces, comparatively abrupt and broken; and growth, of a somewhat wild and bold character." 2

One only has to glance at Matthew Vassar's ornamental farm at Springside to appreciate the importance of this particular species in achieving such a dramatic effect. 3 In terms of spatial organization, the hemlock is the very backbone of the landscape, articulating boundaries and paths, as well as serving as the feature tree of Matthew Vassar's spinneys (figure 2). Springside is an introverted landscape, views are contained, rather than being oriented out over "borrowed" landscapes. In the Guidelines for the Treatment of Historic Landscapes, the importance of maintaining these complex visual relationships in historic landscapes is well stated:

Spatial relationships are the three-dimensional organization and pattern of spaces in a landscape, like the arrangement of rooms in a house. They may have evolved for visual or functional purposes and includes views within the landscape itself. Spatial organization is created by a variety of smaller scale elements, some which intentionally form visual links or barriers such as fences and such as topography and open water. The organization of these elements...
define and create spaces in the landscape. The functional and visual relationship between these spaces is integral to the character of the historic property. Individually or collectively, these features form the spatial relationships of the landscape. These individual features must in turn be treated as they relate to the spatial organization of the property as a whole, not just in isolation.

Sections of Springside’s hemlock plantings will be preserved through specialized treatment. In areas where the trees have deteriorated beyond rejuvenation, landscape rehabilitation is advised. For example, one can maintain the scenographic qualities of Springside through plantings of hardier trees which offer similar visual effects; the Douglas fir (Pseudotsuga menziesii) or white spruce (Picea glauca) would be suitable substitutes. Landscape restoration should, and can take place through the propagation and maintenance of Springside’s original genetic stock of eastern hemlocks.

Washington Irving’s collection of eastern hemlocks is a key element in his romantic landscape at Sunnyside (figure 3). Recent storms and adelgid attack have brought down many of Irving’s hemlocks. Interestingly enough, the gaps created by these fallen trees have significantly altered the wind patterns, thereby causing undue stress to trees which were formerly protected from the heavy gusts off of the Hudson River. Landscape rehabilitation is the only answer here; the shelter belts must be re-established with dense plantings of hardy evergreens. Similarly, nearby Lyndhurst’s significant collection of hemlocks is the main ingredient used to evoke bucolic scenes typical of 19th century America (figure 4). The landscape consists of mature trees which act as a series of frames to the main house and Merritt’s gigantic glass conservatory. In prioritizing trees “worth” saving, those adjacent to the main house and conservatory offer the greatest enhancement to the architecture, and are at the top of the list. In examining the plantings of the early 20th century landscape at Sarah Lawrence College, hemlocks are planted to provide a sense of peace and seclusion to students and faculty living on campus (figure 5). Quickly growing and able to thrive in even the shadiest of sites, the eastern hemlock was considered relatively trouble-free and the ideal specimen for establishing the bounds of enclosure on a wide variety of properties. From a design perspective, the eastern hemlock has long been regarded as one of the best ornamental evergreens, and always first on the list when designing gardens. Careful treatment of this species (or rehabilitation through plantings of hardier trees) is essential to preserving beauty and also a much needed sense of enclosure on residential landscapes and campuses.

(Hemlocks—continued on page 40)
Part III: Treatment Implementation

First sighted in North America in Vancouver, BC, in 1922, the hemlock woolly adelgid had little success in bringing down the mighty western hemlock (Tsuga heterophylla) or mountain hemlock (Tsuga mertensiana). For reasons unknown, these trees are unaffected by this insect. However, hemlocks growing on the east coast have not proven as fortunate. Sucking sap from the young branches of the eastern and Carolina hemlock, the hemlock woolly adelgid injects a toxic spittle causing massive needle drop, leading to eventual death. This pest is easily disseminated by wind, deer, birds, and contaminated branches. Why is it that arborists are so unprepared for an infestation as severe as this? The answer is simple: Trees are not adversely affected on the west coast, and when the hemlock woolly adelgid finally settled on the branches of the eastern or Canada hemlock (Tsuga canadensis Carriere) and the Carolina hemlock (Tsuga caroliniana) in northern Virginia sometime around 1953, it took a long time to produce visible negative effects. Due to the uneven scattering of hemlock trees in the south and the insect's inability to endure hot weather, the hemlock woolly adelgid reproduced very slowly, posing little danger. However, once established on major stands of eastern hemlocks growing in the cool, damp northeast the insect flourished and the population boomed to the degree that hemlocks took on the appearance of snow-clad or "flocked" Christmas trees (figure 6). The lead scientist responsible for identifying the potential threat of hemlock woolly adelgid is Dr. Mark S.
McClure of the Valley Laboratory Connecticut Agricultural Experiment Station in Windsor, CT. He is also the expert in charge of pioneering methods of curtailing the devastation of this insect’s healthy appetite for our eastern hemlocks, and has even traveled deep into the mountainous regions of far away Japan in search of clues regarding the lifecycle of this insect. After studying the feeding patterns and effects of the pest on 71 sites in Japan, McClure conjectures that the hemlock woolly adelgid is native to Japan. In Japan, trees have slowly evolved with the insect; they have built up a tolerance to the toxin and are unaffected, even in high density situations. McClure has found a natural predator to the hemlock woolly adelgid in the form of a small mite known as the Diapterobates humeralis. Blind and as small as a grain of pepper, this tiny arachnid feeds on, and dislodges the cotton which protects the adelgid’s deposit of eggs. Falling onto the ground, the newly hatched adelgids are unable to feed and quickly starve. Having established the fact that the mite has proven effective in controlling adelgid populations, McClure is still in the midst of a series of experiments on this Japanese insect in order to prove that it, too, will not also introduce a host of environmental problems.

In natural settings, such as the Mianus River Gorge Preserve, little hope remains for the eastern hemlock, and the only practical solution is to wait patiently while the insect ravages the forests, depleting the sap in branches of all trees which lay in their path of destruction. As a tragic consequence, animals are losing an essential habitat, and streams, no longer cooled by the shade of the hemlock’s long feathery boughs, are heating up, thereby killing temperature-sensitive fish, such as trout. Careful replanting with a mixture of sturdy conifers, such as spruce, larch, and white pine is the key to preserving wooded sites such as these.

What exactly can the landscape architect do while awaiting a solution to this dilemma? First and foremost, landscape architects should be aware of the maintenance involved in caring for eastern or Carolina hemlocks before designing any major plantings. On sites which already feature large stands of these trees, the landscape architect should make sure that the groundpeople are not using nitrogen fertilizers. Dr. McClure also cautions that landscape architects should resist the temptation of planting major stands of adelgid-tolerant western varieties (Tsuga heterophylla and Tsuga mertensiana) because they may develop serious problems in acclimating to northeastern conditions. In terms of other adelgid-resistant strains of hemlocks, one awaits the hybridization of eastern and Asian varieties, crossing native species with the Siebold hemlock (Tsuga sieboldii) and the Japanese hemlock (Tsuga diversifolia).

In ornamental situations one can take certain measures to curtail the population and reproduction of the hemlock woolly adelgid. Fortunately, the most effective treatment is also the most environmentally sound, and involves little more than a thorough and timely application of horticultural oil, the traditional dormant treatment for scale and insect eggs. The oil is applied three times during the year when the insect is hatching and is most active. In this relatively uncomplicated process, the adelgid’s body is smothered in oil, thus impeding its ability to breathe. The reproductive capacity of hemlock woolly adelgid is so prolific that one must kill at least 95% on contact to keep the population at a constant; actually reducing the number of this menace requires diligence and patience over a long period of time.

Horticultural oil has proven the most successful treatment for mature hemlocks on historic sites, such as at Sunnyside, Lyndhurst, and Sarah Lawrence College. Unfortunately, the arborists may have arrived too late to save the trees at Springside; many of the mature specimens are overrun with adelgid, what little foliage remains is of a grayish cast (figure 7, page 42). The managers face difficult and costly decisions regarding the tragic number of trees which are now in such a weakened and dangerous state that they warrant immediate replanting. (Hemlocks—continued on page 42)
Part III: Treatment Implementation

removal. The irreplaceable aesthetic qualities of delicate branching and graceful silhouette unique to the eastern hemlock warrant every care. Recognizing the important environmental niche occupied by this tree makes its survival even more critical. As responsible stewards of the land, curators, landscape architects, preservationists, and arborists must be prepared to protect these trees if they intend to maintain the integrity of landscapes, parks, and gardens under their domain.

1 Andrew Jackson Downing, A Treatise on the Theory and Practice of Landscape Gardening, New York, 1844, pp. 267-269.
2 Ibid., p. 56.
3 Situated in Poughkeepsie, NY, Springside is a National Historic Landmark, owned and managed by Springside Landscape Restoration. This is the only extant, authenticated landscape by A. J. Downing.
5 The fir is an excellent substitute, providing deer predation is not a serious problem.
6 The kitchen garden would serve as a good nursery garden. The young specimens would be cultivated and treated in this controlled environment.
7 Sunnyside is located on the east side of the Hudson River near North Tarrytown, NY. Rescued from demolition in 1945, the site was deeded to Sleepy Hollow Restorations, which is now known as Historic Hudson Valley. Washington Irving made major improvements on his landscape at Sunnyside from the late 1840s until his death in 1859.
8 Frazer Pehmoeller, Historic Hudson Valley’s Director of Historic Landscapes and Horticulture, has authenticated the age of the eastern hemlocks at Sunnyside through ring counts of storm-damaged trees.
9 A National Historic Landmark, Lyndhurst is a property of the National Trust for Historic Preservation and is located in North Tarrytown, NY. The Trust is considering a period of landscape significance concurrent with the activity of the German gardener, Ferdinand Mangold, ca. 1865-1905.
10 Every effort is taken to preserve the trees around the main house, which is known as the most impressive Gothic Revival villa standing in America. Other attention is focused on the band of trees enclosing the Rose Garden, which is situated adjacent to the conservatory.
11 Located in Bronxville, NY, Sarah Lawrence College was originally the estate of William Van Duzer Lawrence, the developer of Bronxville, who founded the College in honor of his wife in 1926. Today, the campus is a pathwork of other beautiful “mini-estates,” each of cultural significance.
12 Each “snowflake” or small white deposit (about the size of the tip of a cotton swab) is actually an egg mass, representing 100 to 300 eggs.
13 Located in Bedford, NY, the Mianus River Gorge Preserve is managed by Mianus Gorge Preserve Inc., and was the first property donated to the Nature Conservancy. It is also the nation’s oldest Natural History Landmark, designated by the Department of the Interior in 1964.
14 To make matters even worse, dense populations of deer are devouring the understory, thereby hindering natural forest regeneration.
16 For more information on the scientific basis for the application of horticultural oils, refer to McClure, “Hemlock Woolly Adelgid,” American Nurseryman, March 15, 1992, pp. 82-86; also see his piece, “Pesticides will Protect Ornamentals from Hemlock Woolly Adelgid,” Frontiers of Plant Sciences, Volume 44, Number 1, 1991, pp. 2-3. For research findings regarding the long-term effects of hosticultural oils, see John A. Davidson, Stanton A. Gill, and Michael Raupp, “Foliar and Growth Effects of Repetitive Summer Horticultural Oil Sprays on Trees and Shrubs Under Drought Stress,” Journal of Arboriculture, Volume 16, Number 4, April 1990, pp. 77-81.

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Jens Jensen: Maker of Natural Parks
Book Review

Robin Karson

Robert Grese, author of *Jens Jensen: Maker of Natural Parks and Gardens* (The Johns Hopkins University Press, Baltimore, MD, $34.95), has written a fine, intelligent book of unusual depth and scope. Jensen's passionately felt insights about the designed and native landscape have never before been made so clear or accessible. Grese clearly admires his subject, yet this is not a biography: Jensen's sometimes contrary, fire-breathing persona does not command center stage in Grese's inquiry. Rather, the author focuses on the essence of Jensen's legacy through a cataloging and analysis of his professional accomplishments.

The Danish-born landscape architect (1860-1951) was an extraordinary figure. His three decades of work on the Chicago park system alone would qualify him as one of the most influential practitioners of the period. But Jensen accomplished far more: he designed parks, nature preserves, playgrounds, school grounds, residential projects, hospital grounds, golf courses, subdivisions, and resorts. He wrote persuasive polemics, founded conservation movements, established a school (the Clearing, still active in Elliston, WI), and awakened a sensitivity to stewardship issues still relevant today.

Grese's meaty survey is the result of eight years of research, based primarily on the Jensen archives at the University of Michigan where he teaches in the School of Natural Resources. The author also used material in the Jensen collection at the Morton Arboretum in Lisle, IL, records of the Chicago Park District, and other, more minor repositories. Because a fire destroyed most of Jensen's office records, documenting his work presents special difficulties. Readers will be particularly grateful for the extensive project list published in Appendix I. The 35-page glossary of "Key Names and Terms" the author has prepared for Appendix II is also of inestimable value.

As part of his research, Grese also reviewed a great deal of the relevant contemporary literature. The book's second chapter offers a synthesis of the era's major themes and ideas; it is the most convincing portrait yet of the period. Many of Jensen's predecessors and colleagues, including F.L. Olmsted, Sr., H.W.S. Cleveland, O.C. Simonds, and Frank Waugh, receive thoughtful analysis here.

Chapters three, four, and five persuasively present Jensen as a visionary whose wide-ranging ideas bear careful consideration. The author's clear, lucid prose provides insight throughout, as in this passage about the landscape architect's approach to space-shaping: "The axes of many of Jensen's open spaces were often slightly bent so that the end of the space disappeared just around the bend; thus, the space assumed an almost infinite quality. Likewise, the borders of these spaces were frequently made up of a series of irregular coves and promontories of shrub and tree masses that provided a sense of mystery, an illusion that there was space hidden behind the massed plantings. This enticed the viewer to move through a space to see what lay beyond each bend." (p. 160)

Grese also discusses landscape in social paradigms, as in this passage concerning Jensen's ideas about play and playgrounds. "[They] provide a useful model for play areas that emphasize quiet places for reflection and dreams as well as active zones for socialization and physical exercise. Jensen designed sensual spaces that were deliberately open-ended, creating a sense of both enclosure and mystery. In their many layers of vegetation and in the wildlife they attracted, children found great variety and numerous places to explore. Plantings were chosen to recall primitive qualities of the site and to help children sense the rich history of the region." (p. 193)

One aspect of Grese's otherwise superb book is problematic: he dismisses almost the entire formal output of the Country Place Era in a single paragraph, thereby eliminating a crucial context for interpreting Jensen's estate designs. "The design traditions being copied by American designers on formal country estates," Grese writes, "were rooted more in European imperialism than in American democracy. Like Italian villas or French chateaux, these estates served the sole purpose of amusing the owner by displaying personal wealth." (p. 27)

Two points come to mind. The first is that the best residential work of the period did far more than "copy." Of course early 20th century design reperatories in the United States reflected European influence; the history of landscape art—or any art—is the story of such linkages and influences. Admittedly, some designers played the iconographic game with more skill than others, but (and here is the second point) it is important to remember that Jensen played it too. While he did not often incorporate specifically European architectural motives into his work, Jensen did use European design techniques: French, English, and, to a lesser extent, Italian ideas are reflected in his approaches to shaping garden spaces, creating vistas, and laying out residential site plans.

There is disturbingly unowned cultural value judgment lurking behind Grese's assertion that the "sole purpose" of estate work was to amuse its owners by "displaying personal wealth." Regardless of the sources of the money fueling them, in almost every case these estates were, first and foremost, places to live; the best of them were designed to enhance clients' relationships with nature—in fact, many included extensive wild gardens. And at least some of the period's other practitioners (Warren Manning, for example) were passionately interested in birds and rushing water and the play of the setting sun and designed accordingly. While not every landscape architect of the period possessed Jensen's fervent attachment to native plants or his understandable disdain for imperial, European architecture—or his ability to open his clients eyes to simple, profound beauties—the struggle between informal and formal design was sharply felt by most.

Nonetheless, Grese's book sets new standards in the field; it is sure to have lasting influence on the under-
standing of Jensen, and on our ideas about writing landscape history. Among general readers the monograph will almost certainly raise interest in preserving Jensen's few surviving landscapes; a task, Grese points out, made particularly difficult by the subtlety of his designs. Jensen's own thoughts on the matter of preservation raise interesting questions: "It matters little if the garden disappears with its maker," Jensen wrote in 1939. "Its record is not essential to those who follow because it is for them to solve their own problem, or art will soon decay. Let the garden disappear in the bosom of nature of which it is a part, and although the hand of man is not visible, his spirit remains as long as the plants he planted grow and scatter their seed." (p. 189)

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