Tools of the Trade:
Methodologies in Landscape Preservation

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The American landscape, as J.B. Jackson has so eloquently told us over the years, is more than place, it is a cultural archive. From highly articulated parks and formal gardens, to large rural communities and suburban townscapes, the landscape itself can often be read as an indicator of cultural pattern, values, and heritage. The academic context for the concept of landscape as cultural archive is best understood in the history of art and literature, and in the work of cultural geographers and historians who, for many years, have been investigating the relationships between culture and the built landscape (1). In more recent scholarship the traditional academic division of landscapes into categories of "natural" or "cultural" has begun to disappear as we realize that even some of our most cherished "natural" landscapes such as the Grand Canyon, or the Yosemite Valley, have taken on cultural value. For Native Americans in Alaska and the American Southwest, traditional hunting grounds and migration routes are ethnographic landscapes that carry value in the culture through many generations. Perhaps even more challenging are the intangible or ephemeral values found in the way people experience or think about the land, such as the spiritual connotations many Native American groups associate with landforms, flora and fauna, and natural processes. In these cases, the "natural" landscape is the cultural value (2). Over the past several years, many organizations and individuals have actively been involved in the redefinition, documentation, and preservation of cultural landscapes. Publication in 1984 of Robert Melnick's book, *Cultural Landscapes: Rural Historic Districts in the National Park Service,* was in many ways the first attempt to clearly identify the characteristics that compose the landscape as a cultural system, and to provide a methodology and framework for the documentation, evaluation, and management of these resources. Most importantly, Melnick's book did two things: it emphasized the need for good historical research as the basis for landscape preservation; and it restated the critical need to view the landscape as a dynamic system, with potentially multiple periods of significance, rather than as a static entity (3). To be sure, there will always be gardens and landscapes that are significant as artifact, but the preservation philosophy that freezes a resource to a single time and place is not often realistic for a cultural landscape. Even if many of the individual features in a landscape—

such as walkways, stone fountains, fencing details, and site furniture—can be preserved in a traditional manner, other key components, such as vegetation and landforms, by their nature change over time; disruption of these ecological processes is neither realistic nor appropriate.

Both in an academic and practical context, cultural landscape preservation has become a discipline in itself, drawing together professionals from the fields of landscape architecture, history, geography, horticulture, archaeology, and architectural history. While this interdisciplinary approach to the topic has boosted scholarship, it has led to considerable debate over definitions, language, and appropriate preservation treatments. For example, within the preservation community, a cultural landscape is defined as any geographical area that either has been impacted by human activity, or serves as the background for an event or person important in our history. Although this term is commonly used to denote a landscape that has historic value, it is a very broad definition and has led to considerable confusion because virtually every landscape we see has been impacted in this way. From building roads to establishing property lines and building houses, the physical landscape is, for better or worse, residual culture. With this in mind, the term cultural landscape is now generally considered as an umbrella term, under which are four more specific types of landscapes, including historic designed landscapes, historic sites, historic vernacular landscapes, and ethnographic landscapes (4). While the further classification of these landscapes was helpful for some, for many others the issue remained confusing. For example, it is not uncommon for a vernacular landscape to have designed characteristics or ethnographic resources within its boundaries. Many wondered if different types of landscapes required different approaches with regard to documentation or treatment. At a more basic level, for many professionals accustomed to traditional preservation which tended to focus on structures, it was difficult to think beyond the building to a preservation theory that stressed the preservation of a dynamic resource where change, function, and use were as significant as design and material.

In more recent years, many of the concepts expressed by Melnick and others have been influencing both academic and practical applications in landscape preservation, leading to a welcome and energetic exchange of information. Professional organizations such as the Alliance for Historic Landscape Preservation and the American Society of Landscape Architects have sponsored symposia, workshops, and publications providing a forum for practitioners and academicians actively exploring the issues and presenting case studies for debate and thoughtful examination. As the nation's lead preservation agency, the USNPS has undertaken a number of initiatives ranging from a Servicewide survey of historic orchards to the development of working definitions, standards for treatment, and management strategies for preservation and interpretation. It has further enforced its commitment by funding numerous cultural landscape studies and, perhaps most significantly, has in the last year staffed two historical landscape architects in the Washington office where policy is developed for the Service as a whole. In addition, the National Trust for

Historic Preservation and the Association for Preservation Technology have both recently begun to include sessions devoted to historic landscapes at annual meetings, and published literature focusing on landscape preservation technologies. While these professional organizations were working to institutionalize the philosophical framework for a landscape preservation ethic, scholars continued their research and greatly expanded the type and number of available resource materials. In addition to boosting the number of publications on landscape history, this work has led to the establishment of new repositories and research facilities such as the Catalogue of Landscape Records at Wave Hill in New York, and the Olmsted Archives at Olmsted National Historic Site in Brookline, Massachusetts.

These efforts and others like them have had a strong influence in the development of new techniques and theories of landscape analysis and preservation which, in turn, have impacted the ways in which issues are identified and addressed. These landscape preservation techniques have had the most significant influence in three primary areas: *inventory and documentation; landscape analysis and evaluation;* and *treatment.*

Inventory and Documentation

A strong commitment to research and the use of research materials has perhaps had the greatest impact on the technology of cultural landscape documentation. While historical research traditionally involves almost exclusive use of the archival record, research in the context of documenting the cultural landscape requires the review and interpretation of the archaeological record for the site, and a detailed physical investigation of the existing landscape.

The use of various written materials, including manuscripts, diaries, personal accounts, newspapers, and correspondence, is most useful in understanding the design intent and the historical context within which the landscape will be evaluated. This is especially important with designed historic landscapes where the original concept behind the design often serves as the basis for preservation treatment. For example, the writings of Frederick Law Olmsted have been used extensively to develop conservation and preservation guidelines for many landscapes designed by the Olmsted firm, such as the suburban village of Riverside outside of Chicago, Illinois. Designed by Olmsted and Calvert Vaux as a prototypical suburban village in 1868-69, Riverside is a landscape characterized by gently curving streets, generous setbacks, and large park areas and open spaces. Although Riverside has retained much of its original landscape character, there have been a number of changes over the years prompting the local historical commission and the Riverside Village Board to initiate a landscape rehabilitation plan. In developing the plan, Olmsted's writings were used to identify key landscape design principles and restate the philosophy associated with the original Riverside plan. Research into Olmsted's writings, for example, indicated that he intended to supplement the existing plantings at Riverside with new materials to create a pastoral or "beautiful" style. According to Olmsted, formal plantings were to be avoided in order to enhance the qualities of the natural

scene. New plantings were to be massed, establishing a natural, layered appearance, stepping-up from the ground plain. In this way the relationships among plant groupings, open spaces, streets, the river, and other landscape components contributed to a landscape where the individual feature—the isolated tree, single shrub, or street—was not as significant as the overall coherent scene (5). These principles were documented and used in the development of specific conservation guidelines for the landscape of Riverside, targeting reestablishment of key relationships and patterns as originally intended by Olmsted, rather than a plant-by-plant restoration.

Other documentary materials, including maps, oral histories, aerial and infrared photographs, historic photographs, paintings, drawings, and illustrations, are basic tools for understanding what the landscape looked like during its historic period(s). In rural areas, aerial photographs are often used to document large-scale settlement patterns, land use activities, and circulation networks. These patterns and relationships are important in the landscape because while the small-scale features—fences, crops, and outbuildings—can change frequently, these large-scale patterns often remain for generations. Infrared photographs provide an additional layer of information by depicting features that may not be discernable on the ground plain. For example, at George Washington Birthplace National Monument in tidewater Virginia, infrared photographs were used to identify Indian occupation sites, and to map an extensive system of irrigation ditches dating from the eighteenth century. Neither of these features were visible during the initial ground survey. At a smaller scale, historic photographs are invaluable for illustrating the physical appearance of the landscape at a specific time and place. At Eugene O'Neill National Historic Site for example, historic photographs were used to determine the character and location of non-extant garden features such as walkways, terrace walls, and planting areas. In one case, individual bricks depicted in a historic photograph were counted using a magnifying glass in order to determine the width and dimension of a historic path so that it could be accurately reestablished. Archaeological investigations and ground testing at the site were used to verify these findings, and proved initial interpretations to be very accurate.

For many historic landscapes the archaeological record can also help in determining the lay-out and character of missing garden features, and can clarify the structural history of the site using both ground profiles and artifact analysis. These techniques have been used for garden restorations with dramatic results at such places as Bacon's Castle and Thomas Jefferson's Monticello (6). At Monticello, archaeological excavations revealed a variety of marks, or "stains," in the soil, left behind as fence posts decayed, old ditches silted up, and planting beds were covered. In conjunction with the delineation of these features, the traditional archaeological practice of determining chronology by dating groups of artifacts found in association with each layer allowed archaeologists to separate Jefferson's original garden from later ones (7). In addition, archaeological investigations can provide much needed information on historic land use practices, historic vegetation, and the

use or manipulation of natural resources by a cultural group. This technology—called phytolith or pollen analysis—is especially valuable to the documentation of cultural landscapes (8).

Archaeological investigations, Monticello, Virginia. Along with the extensive written record, these investigations are helping archaeologists determine location, extent, character, and materials historically comprising Thomas Jefferson's garden at Monticello.

Documentary source materials and the archaeological record are fundamental aspects of site research and investigations, but the key to documentation and understanding the landscape as a cultural system is most often found in the link between documentary sources and the physical landscape. The identification of character defining patterns and features in the cultural landscape has, more than any technology, provided a methodology for documenting the cultural landscape in a systematic and practical manner. Landscape components—including spatial organization, circulation networks, land use patterns, vegetation, individual structures and cluster arrangement, and any number of small-scale features such as fountains, fences, walls, and sculpture—all contribute to defining the cultural character of the landscape. New landscape inventory formats have been developed by several professional organizations, and by federal, state, and local governments. These formats range from simple check-lists—which have been used to document such diverse cultural landscapes as the taro fields, irrigation ditches, and farmhouses of Hanalei on the north shore of Kauai; park and rural landscapes throughout Illinois; and a 17,400-acre rural historic district in Washington state—to more detailed inventories combining graphic and written materials in a catalog format. While both formats require site investigations, field mea-

surements, sketches, and photographs of key landscape components, the catalog format encourages the integration of historical data to facilitate a preliminary analysis and assessment of significance. This type of format has been used by the USNPS to inventory such diverse sites as backcountry homesteads in Washington's North Cascades and Spanish Colonial mission sites in San Antonio, Texas. In every case, our ability to recognize cultural landscape components and document them through time has become the key to a successful methodology and process for assessing significance in the landscape.

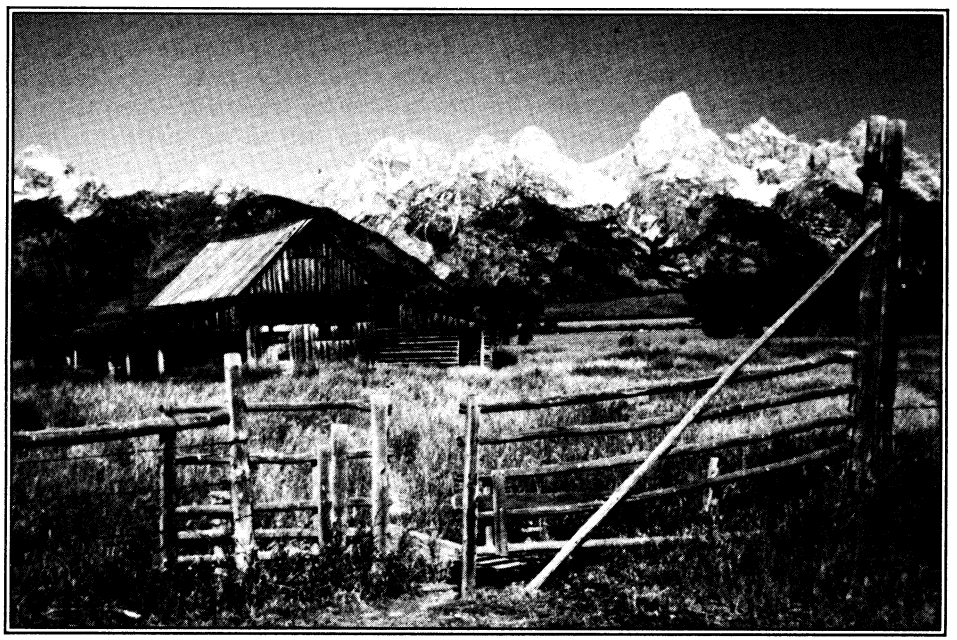
Analysis and Evaluation

The organization and synthesis of data gathered as part of research and field documentation leads directly to the analysis and evaluation of the landscape. The evaluation itself is the technique for assessing value. But just because a landscape is old does not mean it has historic value. It must be evaluated within a historic context and meet National Register criteria for significance and integrity. The National Register of Historic Places has a long history of listing structures, but as recently as 1986 did not have criteria for evaluating landscapes. Working with landscape architects and other professionals actively involved in preservation, the National Register responded to the need by developing three bulletins addressing a process for documenting and evaluating different types of cultural landscapes (9). Like other historic resources, a landscape must meet one of the four criteria for significance and have integrity. These new criteria are similar to existing National Register standards in that the significance of a landscape must either be associated with broad patterns of history or the lives of individuals important in history, or with the work of a master; be important for its physical characteristics or design; or be able to yield information important in prehistory or history. Cultural landscapes that are less than fifty years old, have been built for commemorative purposes, and gardens or parks that are reconstructions, must meet additional criteria for listing (10). Despite years of debate, the fifty year rule remains troublesome when assessing the significance for most cultural landscapes—especially vernacular and ethnographic landscapes—because a great deal of their significance often rests in the concept of continuum, both in terms of use and function, and material and design.

Integrity is the ability of the landscape to reflect its significant historic characteristics and features and is defined by seven qualities—location, design, setting, materials, workmanship, feeling, and association. Because landscapes change over time, cultural landscape integrity takes into account the condition of surviving historic components, the impact of non-historic features, and the loss of significant features (11). As an example, for a historic ranch complex in the East Corridor of Grand Teton National Park, Wyoming, integrity of design is characterized by the definable patterns of spatial organization, the location and character of roads, building clusters, vegetation, pasture lands and corrals, irrigation ditches, fence lines, and so on. Integrity of design is determined by the degree to which those key landscape characteristics survive and relate to the period or periods of historical significance. If the original fence has been rebuilt in the same

location and is similar in character to the original fence it does not detract from the overall integrity. If, however, seven of the original nine buildings associated with the complex are missing altogether and the historic cluster arrangement cannot be discerned, vegetation has overtaken pasture lands, and irrigation ditches have eroded beyond repair, the site has lost too much fabric to have integrity of design.

In addition to addressing the issues of significance and integrity, the bulletins outlined a process for documentation, assessment, and long-term preservation planning that has had a great impact on our ability to preserve and manage the significant characteristics and features of a landscape (12).



The Moulton Homestead, Grand Teton National Park, Wyoming. The remnants of an early ranch/homestead in the East corridor of the park. All but one building removed, yet landscape retains evidence of original complex (vegetation, irrigation ditches, etc.).

TREATMENT

As in other areas, preservation technologies for the treatment of cultural landscapes is far behind accepted treatments for buildings. The need to develop guidelines specifically for landscapes like the Secretary of the Interior's "Standards for Rehabilitation" has finally been recognized and is being addressed by several groups in collaboration with the USNPS's Office of Preservation Technology and Assistance (13). This work is especially valuable in terms of technology because it is bringing together the collective skills and knowledge of individuals who have been working in the field of landscape preservation for over a decade, all of whom share the goal of developing a technology with broad and uniform application. Guidelines for Acquisition, Protection, Stabiliza-

tion, Rehabilitation, Restoration, and Reconstruction are being developed for landscapes at three levels: site context/environment; the property itself; and individual elements and landscape features including plant materials, landforms, circulation, buildings and structures, and site furnishings. This format is working to reinforce and expand the framework of existing landscape preservation technologies that have been employed in the past, fundamentally exploring the ways in which we manage change. More significantly, it is restructuring the way in which we view and evaluate landscapes, ultimately enhancing the ways we protect and preserve them.

These techniques for documenting, evaluating, and treating cultural landscapes have been a catalyst for a new type of preservation ethic focusing on realistic and viable strategies for preserving cultural landscapes. In practice, however, the development of specific techniques are most often influenced by applied theory. In the past several years there has been a tremendous growth in the number of landscape preservation projects, ranging from the rehabilitation of Eugene O'Neill's one-acre courtyard garden at the Tao House near Danville, California, to the innovative preservation planning of thousands of acres in the Connecticut River Valley under the leadership of the Center for Rural Massachusetts. These projects and many others have promoted a greater awareness of the issues and challenges of applying landscape theory and analysis to the actual preservation of a cultural landscape. The need for and use of historical research, site investigations, National Register criteria for significance and integrity, and appropriate treatment, has created opportunities to integrate the historical record and resource values with long-term objectives for use and management. A good example of this is the landscape preservation study recently completed by the USNPS at Rim Village in Crater Lake National Park, Oregon.

Rim Village is a designed historic landscape in the Rustic style, implemented by the USNPS and Civilian Conservation Corps workers between 1927 and 1941. Rim Village is also the primary developed area in the park and is the focus of a multi-year redevelopment project which includes a major rehabilitation of the Crater Lake Lodge, the construction of new structures and visitor facilities, and reconfiguration of the historic landscape, including the roads, pedestrian paths, rock walls, and plantings found throughout the site. That the landscape was going to change to accommodate new uses at Rim Village was not in question. What was at issue was how much and what type of change could occur without losing the qualities and characteristics that define this significant historic landscape. The purpose of the historic landscape study at Rim Village was to investigate the historic record, identify and evaluate cultural landscape resources, and develop recommendations for preservation of significant resources within the context of the redevelopment program for the rim. While preservation does not preclude development, to be successful treatments must be based on an assessment of historical significance. At Rim Village, as in all cultural landscape assessments, the objective was to clearly identify the individual features that constitute the historic landscape (in terms of form and function) and then analyze those features in relation to each other, and

within the context of the overall design intent. It is from this understanding that appropriate treatments for preservation and management were achieved.

The historic record for Rim Village was particularly rich, and provided the basis for documentation, evaluation, and the development of preservation guidelines for the site. The landscape architects working at Rim Village in the 1930s kept copious notes, recording not only what they did from month to month but why and how they did it. In this regard the historic record is more than a chronology, it is a record of the ideas and technologies for implementing the USNPS Rustic style and philosophy to the landscape of Rim Village. Several documentary materials were used in the research phase of the project. Among the most essential were primary source materials on file in the park, including historic photographs, maps, drawings, oral history transcripts, master plans for the park, and manuscripts such as the Superintendent's Annual reports chronicling the implementation of the design. In addition, monthly reports of the Chief Landscape Architect working in the park were located at the National Archives. Many of these reports contained photographs illustrating construction techniques, and hand-rendered site maps depicting work at the Rim as it progressed. These materials were useful not only for describing the general character of the landscape, but were critical for understanding the design intent behind many key components of the design. [Ref. cover photo.] Period literature, such as Albert Good's *Park Structures and Facilities* (1935), and literature on landscape design by Frank Waugh, Henry Hubbard, A.J. Downing, and Olmsted, was used to understand the historical context for the Rustic philosophy in landscape design, and the physical expression of that philosophy in the landscape at Rim Village. Base-line documentation, including park studies and historical files compiled by the park historian, was also used. From these records, a landscape history was written, documenting the site in terms of use and function, material, form, and design intent. Primary landscape components were then documented in terms of their historic form and role in the landscape, and as they exist in the contemporary landscape. National Register criteria were used to evaluate the significance and integrity of individual features in the context of the overall design. Based on this evaluation, recommendations for treatment were developed.

The primary treatment selected for the landscape at Rim Village was rehabilitation, allowing for appropriate adaptive use without compromising the historic design intent for the site. For example, planting beds throughout Rim Village were historically composed of native materials arranged in groupings that reflected plant associations typically found in nature. This was a basic tenet of the Rustic philosophy with regard to plant materials as designers worked to integrate and blend building and artifice into the "natural" landscape. In the new design for Rim Village, where historic planting beds are to be disturbed, they will be re-established using in-kind materials. Plant-for-plant restoration is inappropriate in this context because what is important—the design intent—is the use of a native plant palette, and the massing of materials to create a specific effect. Moreover, where new planting areas are needed they will follow this

same concept, assuring continuity in the overall planting scheme for the site and design as a whole. In another instance, where new roads or walkways are needed, the guidelines addressing layout and configuration will also follow design criteria formulated from the historic record and landscape evaluation. New roads will be constructed only when necessary and designed in the "naturalistic" style, curvilinear in character and recessed to appear subordinate to the landscape. Again, in this particular landscape, the overall Rustic philosophy as defined in the historic record, and the physical expression of that philosophy in the landscape, provided the basis for treatment. Similar guidelines were developed for other landscape components at Rim Village, from land-use patterns to rock walls and picnic tables. In every case, a clear understanding of the historic record and the significance of individual features in the context of the landscape as a whole was critical for determining an appropriate preservation treatment.

This process of documentation, evaluation and treatment has fostered an interdisciplinary approach to landscape preservation which, in turn, has led to a greater understanding of the complexity of these resources. While these technologies are molding a stronger preservation ethic for cultural landscapes, there are many more questions and issues to address. For example, we still must overcome the tendency to preserve the "image of place," rather than the time and place that is landscape. This is the difference between nostalgia and preservation, and it is a mentality that has turned many 19th-century industrial towns on the U.S.'s East Coast into quaint villages complete with street trees, Victorian-style benches, and manicured turf with bedding plants on the commons, all of which never existed historically. It is not always realistic to throw soot on the sidewalks and let pigs roam the streets for effect, but some consideration must be given to the landscape as cultural context and as an interpretive environment in and of itself. Cultural landscape interpretation is a technology that is just beginning to emerge, and undoubtedly will play a strong role in the development of new strategies for preservation. Finally, it is important to recognize the need for additional investigation and scholarship in the discipline of landscape history. There has not, for example, been a nationwide theme study on landscape architecture. Without such a study, key historical contexts in the field will remain ill-defined and critical academic typologies of stylistic trends, design principles, and the identification of individuals significant in the field of landscape architecture will remain obtuse at best, and scholarship will remain with a relatively small group of academicians. Reinforcing the bridge—between practice and scholarship—is critical to the development of viable and creative new technologies for preserving our cultural landscapes. . . preservation not just because a landscape is old, but because it has values that we can identify as part of our cultural heritage.

ENDNOTES

1. Melody Webb, "Cultural Landscapes in the National Park Service," *The Public Historian* (Vol. 9, No. 2), Spring, 1987, pp. 78-80. Also see notes, pp. 78-79, for bibliographic sources of related work.
2. Hugh C. Miller, "Landscape Preservation . . . What' s Next," presented as the closing address at the Landscape Preservation Seminar held at Amherst, Mass., on March 26, 1988. Also see the USNPS's *Cultural*

Resources Management Bulletin (Vol. 10, No. 1), February 1987, an issue focusing on ethnographic resources.

3. Robert Z. Melnick, *Cultural Landscapes: Rural Historic Districts in the National Park System* (Washington, D. C.: U.S. National Park Service, Park Historic Architecture Division, 1984), pp. 1-5. Also see Webb (1987) for a good discussion of Melnick's work.
4. The definitions were developed by the USNPS in 1985, in collaboration with the American Society of Landscape Architects and other professional organizations. Additional designations such as "memorial landscapes," "folk landscapes," and "landscape setting" are also used in different regions of the country. The USNPS will be revising these definitions in 1991.
5. Malcolm Carins and Gary Kesler, "Protecting a Prototype," *Landscape Architecture* (Vol. 77, No. 4), July/August 1987, pp. 62-65. Many of the design principles used by Olmsted in Riverside (as well as most of his other projects) were also used by other landscape architects working during this era, establishing a recognizable landscape design style and historical context for evaluating landscapes from this period.
6. Kathleen McCormick, "The Garden, History Unearthed," *Historic Preservation* (Vol. 42, No. 4), July/ August 1990, p. 58.
7. William Kelso, "The Archaeology of Thomas Jefferson's Monticello Landscape," paper presented at the Conference on Landscape Archaeology held in Charlottesville, Virginia, 1986.
8. William Fisher and Gerald Kelso, "The Use of Opal Phytolith Analysis in a Comprehensive Environmental Study: An Example from 19th-Century Lowell, Massachusetts," *Northeast Historical Archeology* (Vol. 16), 1987, pp. 30-48.
9. Bulletin #18, "How to Evaluate and Nominate Designed Historic Landscapes" (1987); Bulletin #30, "How to Identify, Evaluate, and Register Rural Historic Landscapes" (1989); and Bulletin #38, "Guidelines for Evaluating and Documenting Traditional Cultural Properties" (1990).
10. Linda McClelland, "Inventory and Evaluation: Historic Landscapes in the National Register," Proceedings of the Landscape Preservation Seminar, University of Massachusetts at Amherst, March 25-26, 1988, pp. 15-17.
11. *Ibid.*, pp. 18-19.
12. The planning process articulated by the National Register incorporated much of the work done earlier by Melnick and others. This is especially true for Bulletin #30, which focused on rural landscapes and was co-authored by Melnick. Other bulletins drew on the professional experience and expertise of Timothy and Genevieve Keller (Bulletin #18), and Dr. Patricia Parker and Dr. David King (Bulletin #38).
13. The current initiative by the U.S. National Park Service has been going on since 1989, and is being coordinated by Laurin Meier, Historical Landscape Architect in the Preservation Assistance Division in Washington, D.C. Earlier concepts and efforts to develop standards for landscape treatment can be found in David Streatfield, "Standards for Historic Garden Preservation and Restoration," *Landscape Architecture* (Vol. 59, No. 3), April 1969, pp. 198-204; Lisa Kunst and Patricia O'Donnell, "Historic Landscape Preservation Deserves a Broader Meaning," *Landscape Architecture* (Vol. 71, No. 1), January 1981, pp. 53-55; and Christine Capella Peters and Kathleen Maloney, "Standards and Guidelines for Preservation Treatments of Designed Historic Landscapes," developed as an academic project for Cornell University and the State University of New York, in coordination with the State of New York's Office of Parks, Recreation and Historic Preservation (unpublished report), 1989.