

**A Handbook for Managers of
Cultural Landscapes
with Natural Resource Values**

A Web-based publication of:

The Conservation Study Institute
QLF/Atlantic Center for the Environment

Conservation and Stewardship Publication No. 5

Written by Barbara Slaiby and Nora Mitchell, with contributions from
Susan Buggy, Brent Mitchell and Stephen Engler, and editorial
assistance from Leslie Hudson

Woodstock, Vermont
2003

This report is the fifth in the Conservation and Stewardship Publication Series produced by the Conservation Study Institute. This series includes a variety of publications designed to provide information on conservation history and current practice for professionals and the public. The series editor is Nora J. Mitchell, director of the Conservation Study Institute. Co-author of this publication is Barbara Slaiby, with contributions from Susan Buggey, Brent Mitchell and Stephen Engler, and editorial assistance from Leslie Hudson.

The authors would like to thank Charles Birnbaum, Mary Beth Carlin, Ethan Carr, Jill Cowley, Shaun Eyring, Cathy Gilbert, Tonia Horton, Lucy Lawliss, Christina Marts, Robert Page, Charlie Pepper, and Sherda Williams for all of their help.

The Conservation Study Institute was established by the National Park Service in 1998 to enhance leadership in the field of conservation. A partnership with academic, government, and nonprofit organizations, the institute provides a forum for the National Park Service, the conservation community, and the public to discuss conservation history, contemporary issues and practices, and future directions for the field.

We encourage you to share the information in this publication, and request only that you give appropriate citations and bibliographic credits.

Recommended citation: Slaiby, Barbara E., and Nora J. Mitchell. *A Handbook for Managers of Cultural Landscapes with Natural Resource Values*. Woodstock, Vermont: Conservation Study Institute, 2003.

This publication is being made available as a web site rather than a printed document so that it remains a living document. Web images are not placed in the public domain by their appearance on this site.

To make suggestions for further case studies, offer other ideas for tools, approaches or advice, or to suggest additional entries to the bibliography, please contact:

Conservation Study Institute
54 Elm Street
Woodstock, Vermont 05091
stewardship@nps.gov

CONTENTS:

EXECUTIVE SUMMARY

- I. INTRODUCTION
- II. AN OVERVIEW OF CULTURAL LANDSCAPE PRESERVATION
 - A. THE EVOLUTION OF CULTURAL LANDSCAPE PRESERVATION IN THE UNITED STATES
 - B. INTERNATIONAL RECOGNITION OF CULTURAL LANDSCAPE PRESERVATION
 - C. DEFINITION OF “CULTURAL LANDSCAPE”
- III. METHODOLOGY
 - A. LITERATURE REVIEW
 - B. THE CASE STUDY APPROACH
- IV. FINDINGS
 - A. AN OVERVIEW OF THE CASE STUDIES
 - B. GATHERING AND UTILIZING INFORMATION
 - 1. TOOLS AND APPROACHES
 - a. Documentation
 - i. Cultural Landscapes Inventory
 - ii. Cultural Landscape Report
 - iii. Historic Character Study
 - iv. Geographic Information System Database
 - v. Historic American Landscapes Survey
 - b. Outside Expertise
 - i. Charrettes
 - ii. Expert Panels
 - 2. ADVICE FROM INTERVIEWEES
 - a. Integration Across Disciplines
 - b. Integration through Documentation
 - c. Ensuring Adequate Information
 - C. COMMUNICATIONS: GETTING STAFF TO WORK TOGETHER

1. TOOLS AND APPROACHES
 - a. Project Review Process Using a Team Approach
 - b. Compliance Committee
 - c. Natural/Cultural Resource Management Staff Integrated Work-Days
 - d. Organizational Structure
2. ADVICE FROM INTERVIEWEES
 - a. The Importance of Leadership
- D. THE MANAGEMENT PLANNING PROCESS
 1. TOOLS AND APPROACHES
 - a. Sitewide Work Plans
 - b. Post-project Evaluation/Project Evaluation System
 2. ADVICE FROM INTERVIEWEES
 - a. Involve Resource Management Staff in the Planning Process
 - b. Be Realistic about Resource Limitations
 - c. Take Your Time
- E. WORKING WITH OTHERS OUTSIDE THE SITE
 1. TOOLS AND APPROACHES
 - a. Advisory Committee
 2. ADVICE FROM INTERVIEWEES
 - a. Respect the Public at Public Meetings
 - b. Respect Your Neighbor's Management Style
- F. NEEDS ASSESSMENT
 1. GENERAL
 - a. Additional Professional Development
 2. SPECIFIC TO THE NATIONAL PARK SERVICE
 - a. Historic Landscape Architects
 - b. Share Examples of Cultural Landscape Reports
 - c. Flexible Mechanisms and Information on Partnerships
- V. BIBLIOGRAPHY

VI. APPENDIXES

A. INTERVIEW GUIDE

B. NATIONAL PARK SERVICE DEFINITIONS FOR CULTURAL LANDSCAPE TYPES

C. WORLD HERITAGE CONVENTION DEFINITIONS OF CULTURAL LANDSCAPES

D. NATIONAL REGISTER BULLETINS RELEVANT TO CULTURAL LANDSCAPES

E. LIST OF INTERVIEWEES

F. SOURCE MATERIALS FOR CASE STUDIES

G. WEB SITES RELEVANT TO CULTURAL LANDSCAPES

I. INTRODUCTION

The last decade has witnessed an increasing interest in and recognition of cultural landscapes in the United States and worldwide, and there have been an impressive number of conservation successes. Various frameworks have been created to identify and categorize cultural landscapes, and progress is being made in developing tools and approaches for their management. The recognition of cultural landscapes is an exciting development and has focused attention on important historic, cultural, and archaeological resources. However, cultural landscapes present a number of management challenges: for example, their dynamic qualities, scale and transboundary issues, continuity of use, multiple ownership, and multiple jurisdictions. The primary focus of this handbook is on the interface of nature and culture in cultural landscapes. Since cultural landscapes result from the human interaction with the land, they encompass a range of natural and cultural values. The multidisciplinary aspect of cultural landscapes challenges our traditional approach to resource management, which has been discipline-oriented and has created a dichotomy between nature and culture. This dichotomy has proved to be a barrier to developing an integrated approach to landscape management.

In response to the need for a more holistic approach to cultural landscape management, the National Park Service Conservation Study Institute, together with QLF/Atlantic Center for the Environment, initiated this project to develop a handbook for managers of cultural landscapes with important natural resource values. The primary audience for this handbook includes superintendents, site managers, resource managers, and other professional staff. The purpose of the project is to share some of the innovative work being done by resource management professionals: comprehensive approaches that integrate multiple values in management. By creating a web-based document that can easily be expanded to include more case studies and additional suggestions of tools, approaches, and lessons learned, we hope that this web site handbook will provide a forum for managers to share their experiences. We believe this shared experience will lead to a more successful integration of values in cultural landscape management. To share further case studies, offer suggestions for tools and approaches, or advice from experience, please contact us at:

Conservation Study Institute
54 Elm Street
Woodstock, Vermont 05091
stewardship@nps.gov

The “Findings” section of this report presents tools and approaches developed at sites where some level of integration has been achieved. Also included is advice from resource managers gained from years of experience and deemed useful to pass on to others in similar professional positions. This information was identified through the analysis of all of the interviews conducted by researchers, which are listed in Appendix E. Many of the tools and approaches and much of the advice emphasize the importance of gathering and utilizing information from a number of disciplines for decisionmaking. The information

can be gathered by documentation, e.g., cultural landscape reports and historic character studies, or by outside expertise, e.g., charrettes and expert panels. A second focus is on getting site staff to work together more effectively through various communication strategies. Approaches include a team-based project review process and integrated staff work-days. Other tools, approaches, and advice gathered from interviews include ways to improve the planning process and to work with professionals and the public outside of a site.

The research for this handbook also included a literature review. The result of that review is the bibliography.

II. OVERVIEW OF CULTURAL LANDSCAPE PRESERVATION

The focus of this handbook is on understanding the values of both cultural and natural resources in cultural landscapes and finding ways to successfully integrate this understanding into management. Although many tools and guidelines for managing cultural landscapes now exist, effective integration of natural resources into management planning for cultural landscapes remains a challenge.

Because the recognition of cultural landscapes is relatively recent in the United States, this resource is not yet widely understood beyond the circle of professional resource managers. In contrast, the terms “natural resource” and “ecology” became household words at in the 1970s. “Natural landscapes” are usually defined as areas that have not been actively managed or developed. These lands have ecological systems that provide habitat for wildlife, retain biodiversity, purify air and water, and provide a place for recreation. In recent years, a better understanding has developed of the sustained periodic or long-term human occupation of many “natural landscapes,” since many have a history of land use that has significantly influenced the current ecosystem.

“Cultural landscape” is a much less familiar term encompassing a diversity of places, many with significant land use history or other cultural values. Cultural landscapes include battlefields such as Gettysburg and Antietam; the homes and designed estate grounds of dignitaries, inventors, and writers; the sites held sacred by native peoples from prehistoric times to the present; and the valleys where our ancestors settled and farmed. Many cultural landscapes have maintained a continuity of land use into the present.

Many types of cultural landscapes ranging from important historic gardens of less than an acre to rural vernacular historic districts of several thousand acres have been conserved. One important development in the past decade has been the conservation of many ethnographic landscapes and places of identity for aboriginal communities, illustrating that multiculturalism and diversity have gained recognition in the heritage preservation movement. Recently, a number of local initiatives have resulted in designation of heritage

areas by the U.S. Congress; this has focused attention on larger-scale landscapes where an array of cultural and natural values shape regional character and identity.

A. THE EVOLUTION OF CULTURAL LANDSCAPE PRESERVATION IN THE UNITED STATES

Recognition of cultural landscapes as an important part of our national heritage is rooted in the history of historic preservation. In the United States, there are three pieces of national legislation with associated policies that form the legal and governmental framework for historic preservation: the Antiquities Act of 1906, the Historic Sites Act of 1935, and the National Historic Preservation Act of 1966, last amended in 2000. These laws address the preservation of cultural resources for the benefit of present and future generations. The National Park Service (NPS), in cooperation with state historic preservation offices and certified local governments, administers the inventory, evaluation, and listing of significant historic properties in the U.S. through two historic preservation programs resulting from these laws: the National Historic Landmarks Program and the National Register of Historic Places.

While recognition of historic value initially focused primarily on architecture, this focus has broadened in recent years to include landscapes as cultural resources. Although the National Park Service has recognized the significance of landscape characteristics and features in parks since the 1930s, there were no formal policies, guidelines, or standards for preserving and managing cultural landscapes until relatively recently.

In the 1980s, the NPS began revising policies and guidelines for managing cultural landscapes included in the national park system. In 1984, Robert Z. Melnick published *Cultural Landscapes: Rural Historic Districts in the National Park System*, in which he noted that it was important to address the “larger landscape” as distinct from structures: it “often encompasses such elements as landform, plant materials, and location of structures.” Melnick suggested that it was first important to identify those landscapes and then develop methods for their evaluation. In 1985, Ian Firth published *Biotic Cultural Resources: Management Considerations for Historic Districts in the National Park System, Southeast Region*, in which he began to grapple with the relationship between natural resources and cultural landscapes, and the management of what he termed “biotic cultural resources”—plant and animal communities associated with human settlement and land use. In 1988, landscapes were formally identified as a type of cultural resource in *NPS Management Policies*, and with this a policy was established to recognize and protect landscapes with significant historic, design, archaeological, and ethnographic values. This policy also recognized the importance of

considering both built and natural features, and the dynamics inherent in natural processes and continued use.¹

In 1994, the National Park Service expanded the *Cultural Resource Management Guidelines, NPS-28* to include procedural guidance for managing cultural landscapes within the national park system. Also in the mid-1990s, the National Park Service developed two tools for research, planning, and stewardship activities for cultural landscapes. The cultural landscapes inventory (CLI) is a database that provides baseline information on the location, historic development, landscape characteristics and associated features, and management of cultural landscapes. The cultural landscape report (CLR) is the guide for management (frequently termed “treatment” in historic preservation reports) and use of the landscape. In 1999, the National Park Service published a manual for writing cultural landscape reports.²

Concurrently, in order to support the recognition of cultural resources, the National Register began to issue bulletins describing how to nominate them. Beginning in 1987, there have been a number of National Register bulletins that provide advice on how to nominate various cultural landscapes:

- designed landscapes (Bulletin #18),
- rural vernacular landscapes (Bulletin #30),
- battlefields (Bulletin #40),
- cemeteries (Bulletin #41), and
- historic mining properties (Bulletin #42).

In addition, in 1994, the NPS prepared Preservation Brief #36, *Protecting Cultural Landscapes: Planning, Treatment, and Management of Historic Landscapes*, which provides a good overview. In the 1980s, *The Secretary of the Interior’s Standards for the Treatment of Historic Properties* was broadened to include landscapes, and, in 1996, the accompanying *Guidelines for the Treatment of Cultural Landscapes* was published to provide advice on preservation. These NPS publications have inspired a number of landscape inventory efforts by state historic preservation programs and, most recently, by NPS itself. (See Bibliography and Appendix D for listing of relevant National Register Bulletins and other NPS publications.)

B. INTERNATIONAL RECOGNITION OF CULTURAL LANDSCAPE PRESERVATION

¹ Robert R. Page, Cathy A. Gilbert, and Susan A. Dolan. *Guide to Cultural Landscape Reports: Contents, Process, and Techniques*. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1998, 7.

² Ibid, 8-9.

Many countries around the world also recognize the diversity and value of cultural landscapes. Starting in 1984, the UNESCO (United Nations Educational, Scientific, and Cultural Organization) World Heritage Committee (formed under the auspices of the World Heritage Convention, an international treaty) struggled with the issue of cultural landscapes for almost a decade. Two issues inhibited consensus on the values that identify cultural landscapes: the equation of cultural landscapes with rural landscapes, and the requirement for a harmonious balance between nature and human activities in cultural landscapes. Finally, in 1992, new guidelines were adopted to specifically address the question of cultural landscapes. As of February 2002, there were 23 cultural landscapes on UNESCO's World Heritage List. These sites are diverse and reflect a variety of reasons for inclusion, such as the specific technique of land use in the rice terraces of the Philippine Cordilleras or the spiritual beliefs of the people who live in Uluru-Kata Tjuta National Park in Australia. UNESCO is currently preparing management guidelines for World Heritage cultural landscapes.³

Cultural landscapes share much common ground with protected landscapes, Category V in IUCN-The World Conservation Union's protected area management categories. Both are focused on landscapes where human relationships with the natural environment over time define their essential character. But, while the emphases in cultural landscapes have been on human history, continuity of cultural traditions, and social values and aspirations, the primary emphases in protected landscapes have been the natural environment, biodiversity conservation, and ecosystem integrity.

C. DEFINITION OF "CULTURAL LANDSCAPE"

As would be expected from this widespread recognition and interest, there are a number of definitions for "cultural landscape" in use by different agencies and organizations in different parts of the world. The definition currently used by the U.S. National Park Service is:

a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. (*Cultural Resource Management Guidelines, NPS-28*)

The National Park Service recognizes four descriptive types of cultural landscapes that are not mutually exclusive and are relevant to properties nationwide in both public and private ownership. These four types are historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. (See definitions in Appendix B.)

³ von Droste, Bernd, and Mechtild Rössler. "World Heritage Cultural Landscapes." Landscape Stewardship: New Directions in Conservation of Nature and Culture. *The George Wright Forum* 17, no. 1 (2000).

The definition for cultural landscapes used by the National Park Service is of particular interest in this handbook since both natural and cultural resources are recognized as important and integral to the concept of a cultural landscape. It is this multidisciplinary aspect of cultural landscapes that creates current management challenges. These challenges arise from our traditional, rather discipline-oriented, approach to resource management, which has created a dichotomy between nature and culture. This dichotomy has proven to be a barrier to developing an integrated approach to landscape management because the resources most valued in certain disciplines may not be fully understood or appreciated by others. Cultural landscapes, rooted in the interaction of human activity with the natural environment, are the middle ground where the two traditions come together. A major challenge in some vernacular and ethnographic cultural landscapes is that there often are living populations who inhabit the land and have contemporary needs and ambitions. The scale of many cultural landscapes, which may stretch over thousands of acres, presents another challenge. The diversity of the resources—typically diverse cultural resources as well as diverse natural resources—must also be understood and managed. It is now clear that managing cultural landscapes relies on a holistic approach—one that encompasses all significant aspects of a historic property—as these are integrated places of natural, cultural, scenic, and sometimes recreational values that have evolved and been layered over time.

The landscape types recognized by the U.S. National Park Service are comparable, to a high degree, to the categories of cultural landscapes defined in the Operational Guidelines of UNESCO'S World Heritage Convention. (See Appendix C for World Heritage Convention definitions of cultural landscapes.)

III. METHODOLOGY FOR THIS PROJECT

The NPS Conservation Study Institute and QLF/Atlantic Center for the Environment received a grant from the National Center for Preservation Training and Technology to locate and examine case studies illustrating the integrated management of cultural, natural, and scenic resources in cultural landscapes. These successful examples draw on the literature, methodologies, technologies, and practices of both natural and cultural resources to achieve an integrated approach to management of cultural landscapes.

Through identification and evaluation of existing multidisciplinary cultural landscape programs, this research project identified a variety of strategies that foster the integration of natural resource management with historic and cultural resources in cultural landscapes. The project analyzed examples of cultural landscape preservation that illustrate best practices for managing cultural and natural resources in an integrated program. Research for this project followed two pathways: a literature search that resulted in a bibliography, and a series of interviews with resource professionals that led to the analysis of case studies and a summary of the lessons learned. These two sources

of information were synthesized to develop this handbook of tools and approaches for cultural landscape management.

A. LITERATURE REVIEW

The research included a review of literature in cultural landscape management and related fields, as well as in natural resource management, in order to identify best principles and practices in examples of integrated management. This literature review appears in the bibliography for this report.

B. THE CASE STUDY APPROACH

In order to identify successful examples of cultural landscape management that illustrate the integration of natural, cultural, and scenic resources, the project team evaluated a series of case studies. A preliminary list of sites for interviews was chosen based on several criteria. Researchers looked for a broad geographic distribution; variety in both scale and type of landscape (historic, designed, vernacular, and ethnographic); recently designated sites as well as older, long-established sites; and sites managed in partnership. In all but one case, researchers interviewed more than one staff person at each site in order to gain a broader perspective. This series of case studies was drawn primarily from the U.S. national park system. In compiling a list of potential case study sites, researchers considered suggestions made by cultural resource specialists in National Park Service regional offices for locations where resource managers were faced with interesting challenges and were responding with creative solutions. Researchers also drew potential sites from a network of conservation professionals and organizations contacted during a collaborative project that resulted in the preparation of *The Landscape of Conservation Stewardship*,⁴ thus leveraging an existing investment that has been identifying case studies on conservation stewardship. Finally, a search for potential privately managed sites was conducted through the world wide web.

IV. FINDINGS

The following is a summary of case studies and information gleaned from a series of interviews. (See Appendix E for a list of interviewees and sites.) The findings reflect observable patterns in what resource managers, planners, and other staff said about issues in their current working environment. Also included are thoughts or advice that interviewees wished to pass along to others in similar professional positions, as well as a synthesis of some of the lessons learned.

⁴ Tuxill, Jacquelyn L., ed. *The Landscape of Conservation Stewardship: The Report of the Stewardship Initiative Feasibility Study*. Woodstock, Vermont: Marsh-Billings-Rockefeller National Historical Park, Conservation Study Institute, and Woodstock Foundation, 2000.

A. AN OVERVIEW OF THE CASE STUDIES

While the **Blue Ridge Parkway** encompasses a narrow corridor of land owned by the federal government and managed by the National Park Service, the majority of the scenic viewsheds that are integral to the park's significance are on privately owned land under the planning jurisdiction of local communities and 29 counties. For many of these counties, land use planning and growth management are just beginning to emerge; in the interim, there is very little in the way of viewshed protection. Park resource managers and planners have developed a program to engage the public, local stakeholders, and county and municipal governments to analyze and help protect the key viewsheds.

Delaware Water Gap National Recreation Area is a test case for developing a cultural landscape inventory on a large scale. GIS mapping has proven useful as a tool to identify changes in features and patterns of the cultural landscape over time. The park has established an agricultural leasing program to address the loss of open fields, as well as a committee to assess the compliance requirements of various park activities, allow for input from park staff, and ensure that all resource issues are addressed.

Gettysburg National Military Park used innovative approaches in developing the park's updated general management plan (GMP). An analysis of the character-defining features of the Gettysburg battlefield landscape was incorporated into the new GMP and directed resource managers toward the best approach for protecting the cultural landscape. The analysis process also provided a useful tool to illustrate various management options during public comment sessions for the GMP.

Lyndon B. Johnson National Historical Park is a site where a portion of the cultural landscape, a historic pecan orchard, is managed as a cultural resource that remains economically productive. The park staff has worked to develop a management plan for the orchard that respects its cultural and natural resource values, while continuing to produce a saleable crop of pecans each year. Orchard management includes an integrated pest management (IPM) program and a water quality monitoring regime.

At **Marsh-Billings-Rockefeller National Historical Park (MBRNHP)** the Mount Tom Forest is one of the earliest examples of planned and managed reforestation in the United States. The Forest illustrates more than a century of stewardship, from the earliest scientific silvicultural practices borrowed from nineteenth-century Europe to contemporary practices of sustainable forest management. When the Mount Tom Forest was gifted to create MBRNHP, the National Park Service made a commitment to continue the tradition of careful, sustainable forest management practiced by the Billings and Rockefeller families. In 2002, the park, including its forest, was the pilot for a new documentation tool, the Historic American Landscape Survey. MBRNHP is currently developing a Forest Management Plan with a long-term vision for the future of the Mount Tom Forest. The Plan will guide forest practices, historic preservation,

natural resource protection, recreation, education and interpretation. A cultural landscape report and other documentation tools will inform the forest management plan. Working with several universities, consulting foresters, NPS Conservation Study Institute and the NPS Olmsted Center for Landscape Preservation, the National Park Service is bringing the perspectives of many diverse disciplines to the planning process.

At the **Presidio of San Francisco**, a unit of Golden Gate National Recreation Area, resource managers are also developing a vegetation management plan that includes a historic forest. In this case, the National Park Service is developing the plan cooperatively with the Presidio Trust, an independent federal agency. Because the Presidio is located at the edge of a densely populated urban area, public involvement is particularly important. A historic character study currently underway will be combined with knowledge of natural resources to inform management decisions.

The Presidio's small, 145-acre **Crissy Field** is included as a separate case study because of the complexity of developing the site's design plan. The focus of this case study is on the negotiation process used to bring together a broad array of interests to integrate historic preservation and ecological conservation.

Tallgrass Prairie National Preserve was established by legislation on land in private ownership with management responsibilities shared by a private organization, the National Park Trust, and a federal agency, the National Park Service. The National Park Service realized that the success of the park would depend on building a strong relationship with local communities, and that input from local people and organizations would be important in developing the park's general management plan. The process used to develop the plan integrated research and expertise from outside experts and incorporated input from an advisory committee and local communities.

B. GATHERING AND UTILIZING INFORMATION

Adequate knowledge of the cultural landscape is critical to information-based decisionmaking. Required knowledge includes identification and understanding of the natural resources, cultural forces, and historic evolution that have shaped the landscape existing today, including the cultural resources that represent land forms, land uses, and human activities over time. A multidisciplinary approach is essential to addressing the diverse and complex aspects of cultural landscapes. The first step may be to develop a framework for gathering and evaluating information on resources. The second may be to develop a process for analyzing the significance of the cultural landscape and its resources in order to inform management decisions. The tools and approaches for gathering information can be divided into those used for documentation-driven decisionmaking and for counsel-driven decisionmaking.

1. TOOLS AND APPROACHES

a. Documentation

i. Cultural Landscapes Inventory

The cultural landscapes inventory (CLI), developed by the National Park Service, identifies the cultural landscapes at a site and provides information on their location, historic development, landscape characteristics and associated features, and management. It is useful if baseline information provided in the CLI is available at the time a cultural landscape report (see description below) is undertaken. The CLI was implemented throughout the National Park Service in 1997, but inventories were initially carried out on relatively small-scale sites. Delaware Water Gap National Recreation Area is a test case for creating a CLI on a large (nearly 70,000-acre), parkwide scale. (See Delaware Water Gap National Recreation Area case study.)

ii. Cultural Landscape Report

The cultural landscape report (CLR) is used by the National Park Service as the principal management (treatment) document for cultural landscapes. The CLR summarizes a site's history, documents existing conditions, and evaluates the landscape's historic significance. A CLR guides management decisions for a landscape's physical attributes, biotic systems, and uses based on an understanding of historic significance. The *Guide to Cultural Landscape Reports: Contents, Process, and Techniques* was published by the National Park Service in 1998, providing procedural and practical information related to preparing a CLR.

iii. Historic Character Study

A historic character study evaluates the "characteristics and features that define and illustrate the significance of the landscape" (*Guide to Cultural Landscape Reports: Contents, Process, and Techniques*). Mapping of these features provides a tangible illustration of cultural values, and, if mapped at the same scale as natural resources, allows for multidisciplinary discussions and the identification of opportunities for protection of a mix of values. This tool is particularly valuable for sites more than several hundred acres containing large areas of natural systems. (See Presidio Forest case study.)

iv. Geographic Information System Database

Geographic information system (GIS) mapping can be used to see how character-defining features of the landscape have changed over time. Historic aerial photographs can be scanned and known points such as road intersections identified. The first layer created from the old photographs can then be overlaid on a second layer created from the current image, within the same view and in the same coordinate system, to identify changes in features such as field patterns, forests, and structures. (See Delaware Water Gap National Recreation Area case study.)

Another use of GIS is to map resources and compare overlays of natural and cultural resources. The natural resources might include soils, wetlands, vegetation types, and wildlife habitats. Cultural resources might include historic structures, archaeological sites (both prehistoric and historic), and Native American burial sites. Color-coding

can be used to allow resources of highest priority for protection to stand out. By analyzing the GIS maps, the resource management staff is able to identify areas where natural and cultural resources might be managed in concert, and where there are potential conflicts that will need to be resolved.

v. Historic American Landscapes Survey

The Historic American Landscapes Survey (HALS) program was established by the National Park Service in October 2000 as a sister program to the Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER). HALS is intended to document significant historic landscapes throughout the United States with narrative history, drawings, and photographs. Guided by HALS professionals, teams of students in landscape architecture, architecture, planning, horticulture, and related disciplines, as well as interested professionals, conduct fieldwork for HALS through short-term projects. The teams record significant historic landscapes nationwide through measured and interpretive drawings, large-format photography, written narratives, and other documentation techniques. HALS encourages partnerships with private, governmental, and educational institutions to develop landscape documentation and encourage landscape preservation. Marsh-Billings-Rockefeller National Historical Park served as a pilot site for the HALS program in 2002.

b. Outside Expertise

i. Charrettes

A charrette, a form of organized brainstorming, is a workshop with a physical design component. It brings together experts from various disciplines, allowing them to consider important issues together over a short period of time. In general, a charrette is most useful to generate ideas for a more in-depth planning process. (See Marsh-Billings-Rockefeller National Historical Park case study.)

ii. Expert Panels

Many sites have used an expert panel composed of a multidisciplinary team to gather advice and define the scope or data requirements for developing management plans. Panel members can share information and perspectives gleaned from years of experience or research at a variety of sites. The use of an expert panel can reduce the time and cost necessary for gathering this information. Panel members can also identify gaps in knowledge and help determine how these gaps might be addressed. In order to reduce the amount of time consumed by this process, the panel can be charged with specific tasks or questions. (See Tallgrass Prairie National Park case study.)

2. ADVICE FROM INTERVIEWEES

a. Integration Across Disciplines

Many sites are beginning to look for input from many divisions within the park as well as outside experts as a means to make certain that all perspectives are represented in discussions and considered in planning and management actions or decisions. This approach allows resource managers to gather a greater amount of data and expertise. It is important that when using this multidisciplinary approach gathered from many sources, that the resource management staff ensure that the information is integrated.

b. Ensuring Adequate Information

Because cultural landscape documentation methodologies are relatively new, this information may lag behind that for natural resources. Several cultural resource specialists within the National Park Service felt this disparity was a serious concern and a barrier to cross disciplinary integration. As a result, they believe it is critical that there be commitment to gathering cultural landscape documentation in parallel with natural resource information.

c. The Importance of On-going Documentation

On-going documentation is an important role for resource managers and maintenance staff so that any changes made at a site are recorded and may, if necessary, be reversed at some point in the future. It was suggested that this is most often recognized by the maintenance staff who deal with historic structures, but that those who manage natural or cultural landscapes may not view documentation as a priority. Interviewees noted that it is important at every site to develop a procedure for documentation of changes made to all resources, and to make sure that all staff members understand the procedure and follow it for every project.

C. COMMUNICATION: GETTING STAFF TO WORK TOGETHER

Sites that contain cultural landscapes with both natural and cultural values require a decisionmaking process that is viewed as fair and reasonable by all parties. This process can include various professionals such as historians, archaeologists, wildlife biologists, foresters, hydrologists, ethnologists, landscape architects, architects, engineers, interpreters, and maintenance staff. The process should include steps that establish and maintain communication between managers within different divisions at the site. One important role of the site manager is to create a team from an often diverse group of people. Even if staff in different divisions do not get along or work well together, it is the manager's job to make sure the staff is communicating about all key management issues. The process may also involve bringing together representatives of different disciplines through special committees or work teams.

1. TOOLS AND APPROACHES

a. Project Review Process Using a Team Approach

Management of the complex and diverse natural, cultural, scenic, and other values of cultural landscapes requires consistent information flow, active communication in planning, and participation in decisionmaking among multiple staff members, often from different disciplines. One common observation by both natural and cultural resource managers interviewed was that they were frequently unaware of projects until the actual work was begun. Because of this, they were not able to be involved in the decisionmaking process while their input might still affect the outcome. Their sites had no comprehensive list of proposed or funded projects, or there was no mechanism in place for their involvement in the planning or priority-setting process.

The Blue Ridge Parkway's Resource Planning and Professional Services Division has developed a project review process that minimizes conflicts between cultural resource and natural resource managers. Previously, anyone proposing a project at the park would carry out the planning and design phase on their own, then send out the plan for others to review. At that late stage in the process, reviewers might be reluctant to ask for any major changes. As part of the pre-implementation phase of the new process, all players who will have an interest in a proposed project review that project in the field before any design work begins. This generally happens in the spring for all projects proposed for that year. The group first identifies all the natural and cultural resources that will be affected, then designs solutions that consider all natural, cultural, and scenic resource concerns. This is the point where negotiation takes place on planning and management issues. The team stays together throughout the course of the project, with the Resource Planning and Professional Services Division acting as the coordinator. Park planning and resource management staff believe this new process works well and effectively integrates natural and cultural resource concerns.

b. Compliance Committee

This is an interdisciplinary team that meets at regularly scheduled intervals to assess the compliance requirements of various site activities. At Delaware Water Gap National Recreation Area, the compliance committee meets once a month and includes a representative from the superintendent's office, three division chiefs, and professional staff at various levels from all the major disciplines. The committee chair is responsible for making sure that all important resource-related issues are addressed. Although these meetings are not always easy, they provide an opportunity for all of the various participants' concerns to be "laid out on the table."

At Delaware Water Gap National Recreation Area, the compliance committee has yielded several valuable benefits that further the park's goals for resource management and environmental leadership:

- The existence of the committee has raised awareness throughout park staff that planning and compliance reviews should be considered for a variety of park activities, not just major development projects.
- Having a recognized committee that meets regularly provides a structured process for development of standard operating procedures for compliance reviews. The information is then available to any staff member responsible for coordinating or managing a park activity. This structure has eliminated the need for staff members to determine on their own who needs to be contacted and make those contacts individually.
- Regular meetings of interdisciplinary or interdivisional groups of coworkers create a real sense of teamwork that is invaluable when discussing problems and finding solutions to challenging compliance issues.
- Regular compliance meetings make more efficient use of staff time, because up to eight different projects can be reviewed at one meeting. Formerly, each project would have required an individual meeting, meaning that the same staff members would have had to attend up to eight different meetings to accomplish what is now done in a single session.

c. Natural/Cultural Resource Management Staff Integrated Work-Days

One cultural resource manager arranges staff work-days with both natural and cultural resource staff members working side-by-side on a project requiring physical labor. Chosen work sites have both natural and cultural resource components. Working together tends to break down barriers and promotes a better working relationship back in the office. Volunteers from the local community often participate as well.

d. Organizational Structure

Although there may be many ways to achieve an integration of interests in management at a site, several interviewees indicated that one method they felt worked well was to place all staff responsible for cultural and natural resource management within the same division. This allows for daily interaction and increases the likelihood that everyone will have at least some information on various projects before any work actually begins, and will know enough about the projects to know when they should be involved at some level. Several interviewees suggested that integrating natural and cultural resource staff within the same division forces staff to work together at an overall management level, rather than an individual project level.

Placing all resource management staff within the same division also allows for value-laden philosophical discussions to take place over an extended period of time in a relaxed, nonconfrontational atmosphere, rather than during project management

negotiations when tensions can be high. It allows for an exchange of ideas and an educational process so that everyone reaches at least a basic understanding of and appreciation for the importance of all the resources at a site.

Another reason suggested for creating a combined division is that the cultural and natural resource staff members then feel they are at an equal level when trying to achieve integration during the decisionmaking process. By placing all staff within one division under a single division chief, the chief ultimately becomes responsible for integration. If that individual does his or her job well, the atmosphere within the division promotes discussion and learning from one another across disciplines. Staff members need to feel the freedom to express their opinions openly without the fear of criticism or censure, and should understand the importance of listening to and considering the concerns of others. Staff members also need to appreciate their responsibility for airing their concerns openly. Frank debate among all the staff allows them to work together as a team to resolve issues.

2. ADVICE FROM INTERVIEWEES

a. The Importance of Leadership

Several interviewees expressed the importance of supervisors creating a “safe” environment for resource management staff, in which all members feel comfortable in expressing views openly and honestly without fear of recrimination. Staff members also understand the importance of listening to and considering the concerns of others. Staff meetings should be seen as the time to get concerns “out on the table.” In order to create this atmosphere, supervisors need to develop leadership skills.

D. THE MANAGEMENT PLANNING PROCESS

It is important that sites develop a comprehensive approach to planning rather than using an ad hoc approach for each individual project. In this way, planners and managers are better able to see the “big picture” and the interrelationships among projects. When evaluation is built into the planning process, the process becomes a learning experience.

1. TOOLS AND APPROACHES

a. Sitewide Work Plans

It was suggested that parks and other protected areas would do well to set priorities for projects sitewide, through a sitewide work plan. This prevents individuals from pursuing project funding and then having to return that funding if other managers determine the project is not a priority, or if the project conflicts with plans or priorities of other divisions.

b. Post-project Evaluation

After a project has been completed, it is important to step back and look at what worked well and what did not. Time for reflection can be built into the system, becoming a routine part of the process, so that it is no longer possible to immediately go on to the next project without learning something from the last.

In order to evaluate the success of a project, measurable goals and outcomes must be determined in advance. For example, 20 years ago, professionals involved in fire management believed that success was achieved when the fuel load was reduced. Today managers introduce fire as a natural component and are looking for success based on clearly-defined ecological indicators.

2. ADVICE FROM INTERVIEWEES

a. Involve Resource Management Staff in the Planning Process

One interviewee recommended that both cultural and natural resource management be integral, active components of all site planning, and that cultural and natural resource management staff be included “at the table” from the very beginning. It was suggested that resource management staff might be excluded from the site planning process because they are seen as obstacles, pushing to protect everything without compromise. It was also suggested that both cultural and natural resource managers take a more holistic view, realizing that they cannot protect “every blade of grass” and that, at times, there will need to be compromise.

While it may be more enjoyable for resource managers to spend time in the field conducting inventories and collecting data, they should also recognize the importance of using that data to promote protection, which requires time away from the field in planning and negotiation.

b. Be Realistic about Resource Limitations

When resource managers evaluate management options, they need to be realistic about limitations in staffing and funding. For example, the decision to replant a historic orchard will require initial funding, then continued funding and staffing for maintenance for years to come. It may also mean the use of chemical fertilizers and pesticides—even if an integrated pest management (IPM) program is adopted—and the continued monitoring of water quality. This should be viewed as a long-term decision that has a basis in the site’s management planning documents and is not the whim of the current site director.

c. Take Your Time

As a resource manager, it often is not important how quickly goals are achieved but that they are achieved eventually. If we assume that parks and other protected areas exist in perpetuity, managers must accept that it may take a long time to reach a desired end, and that they may not witness that end personally. As long as managers do all that they can to maintain the resources in their care, they should gather all the information possible to make good decisions and not be rushed.

E. WORKING WITH OTHERS OUTSIDE THE SITE

Many case studies illustrate that parks and protected areas no longer work in isolation. Consequently, it can be useful for resource managers to be aware of the views and values of site visitors and surrounding communities, and to recognize that the interests of stakeholders in the public are not homogeneous. It may be important to bring members of the public into the decisionmaking process so that they can contribute their knowledge and also understand the reasons that shape decisions. This can help to build a constituency more willing to support resource protection. In some areas, local opposition to federal ownership can mean that a federal-private or federal-state partnership is the only way to manage a site and that a management program needs to be based on a complex of interests and long-term vision of the future.

Education is important in that it creates good stewards and a constituency for protection of natural, cultural, and scenic resources. If there is a collaborative method to directly involve the public, people gain a greater appreciation for a site, its mission, and its resources. (See Blue Ridge Parkway case study for more information on the view area scenic quality assessment process.)

Cultural landscapes involve not only resource protection but protection of all the values of the place, often including intangible values based on meanings and associations. As an example, it is important to work with indigenous people to understand their traditional knowledge of the places they hold sacred, which are often natural rather than built resources.

1. TOOLS AND APPROACHES

a. Advisory Committee

The use of an advisory committee with representation from a site's surrounding community, including local government entities and special interests, has proven to be an effective means of building local support. In the case of Tallgrass Prairie National Preserve, an advisory committee was created legislatively when the preserve was established, and was involved in developing the preserve's general management plan.

2. ADVICE FROM INTERVIEWEES

a. Respect the Public at Public Meetings

It was suggested that, during public hearings, those conducting the meetings should be respectful of people's time. Avoiding revisiting issues that have been addressed at previous public meetings is one way to do this. Otherwise, those conducting the meetings may be viewed as indecisive or as wasting citizens' time.

b. Respect Your Neighbor's Management Style

If there are differences in the management styles of the staff at a site and the neighboring property owners, it is important to respect the neighbors' management styles and decisions. Often there is more common ground than there are differences, so try to focus on the common areas.

F. NEEDS ASSESSMENT

When asked for information that is needed, for changes that should be made, or for ideas for future programs, interviewees came up with the following suggestions.

1. GENERAL

a. Additional Professional Development

For staff members who work at the ground level, it is helpful to have tools that can be used in making day-to-day decisions. One suggestion was to create hands-on workshops for park staff on various aspects of cultural landscape management. The workshops could be designed so that participants work in teams including natural and cultural resource managers and maintenance and interpretative staff, and would work together resolving issues at their own site or on case studies from other locations.

2. SPECIFIC TO THE U.S. NATIONAL PARK SERVICE

a. Additional Professional Staff

Hire additional professionals such as historic landscape architects to work for groups of parks (a cluster) on specific projects for two or three weeks at a time.

b. Share Examples of Cultural Landscape Reports

Make high-quality examples of cultural landscape reports available to other sites.

c. Flexible Mechanism and Information on Partnerships

Create accessible information and examples of cooperative agreements and other partnership tools. This is especially important for smaller parks with small staffs and

therefore limited expertise. Parks should have access to model agreements for working with other federal agencies and local nonprofit organizations on collaborative projects.

BIBLIOGRAPHY

REFERENCE WORKS AND BIBLIOGRAPHIES

Ahern, Katherine. *Cultural Landscapes Bibliography: An Annotated Bibliography on Resources in the National Park System*. Washington, DC: U.S. Department of the Interior, National Park Service, 1992.

Arnold Arboretum of Harvard University. Institute for Cultural Landscape Studies.
<<http://www.icls.harvard.edu>>

Birnbaum, Charles A., and Cheryl Wagner, eds. *Making Educated Decisions: A Landscape Preservation Bibliography*. Washington, DC: U.S. Department of the Interior, National Park Service, 1994.

Groth, Paul. "Bibliography: Basic Works in Cultural Landscape Studies." In *Understanding Ordinary Landscapes*, Paul Groth and Todd W. Bressi, eds., 243–260. New Haven: Yale University Press, 1997.

National Park Service. Olmsted Center for Historic Landscape Preservation. Publications list. <<http://www.nps.gov/frla/publications.htm>>

Sies, Mary Corbin, Gilda Anroman, Claudia Rector, and Krista Park, comps. *Cultural Landscapes Bibliography*.
<<http://www.amst.umd.edu/research/cultland/index.html>>

Tomlan, Michael A., ed. *Preservation of What, for Whom?: A Critical Look at Historical Significance*. Proceedings of a conference held at Goucher College, Baltimore, MD, March 20–22, 1997. Ithaca, NY: The National Council for Preservation Education, 1998.

CULTURAL LANDSCAPES THEORY AND PHILOSOPHY

Alanen, Arnold R., and Robert Z. Melnick, eds. *Preserving Cultural Landscapes in America*. Baltimore and London: Johns Hopkins University Press, 2000.

Bender, Barbara, ed. *Landscape: Politics and Perspectives*. Oxford: Berg Press, 1993.

Bernard, Ted, and Jora M. Young. *The Ecology of Hope: Communities Collaborate for Sustainability*. Gabriola Island, BC: New Society Publishers, 1997.

Birnbaum, Charles A., and Sandra L. Tallant, ed. "Balancing Natural and Cultural Issues in the Preservation of Historic Landscapes: Selected Papers from the National

- Association for Olmsted Parks Conference." *The George Wright Forum* 13 (1996), no. 1.
- Buggey, Susan. *Historic Landscape Conservation in North America: Roaming the Field over the Past Thirty Years*. *Apt Bulletin* XXIX (1998): 3–4.
- Bunce, Michael. *The Countryside Ideal: Anglo-American Images of Landscape*. London: Routledge, 1994.
- Carmichael, David L., Jane Hubert, Brian Reeves, and Audhild Schanche, eds. *Sacred Sites, Sacred Places*. The World Archaeological Congress. London: Routledge, 1994.
- Carr, Ethan. *Wilderness by Design: Landscape Architecture and the National Park Service*. Lincoln, NE: University of Nebraska Press, 1998.
- Conzen, Michael P., ed. *The Making of the American Landscape*. Boston: Unwin Hyman, 1990.
- Cosgrove, Denis. "Prospect, Perspective, and the Evolution of the Landscape Idea." *Transactions of the Institute of British Geographers* 10 (1985): 45–62.
- . *Social Formation and Symbolic Landscape*. Madison, WI: University of Wisconsin, 1998.
- Cosgrove, Denis, and Stephen Daniels, eds. *The Iconography of Landscape: Essays on the Symbolic Representation, Design, and Use of Past Environments*. Cambridge: Cambridge University Press, 1988.
- Cronon, William. *Nature's Metropolis: Chicago and the Great West*. New York: W.W. Norton and Company, 1991.
- , ed. *Uncommon Ground: Toward Reinventing Nature*. New York: W.W. Norton and Company, 1995.
- Duncan, James, and David Ley, eds. *Place/Culture/Representation*. London: Routledge, 1995.
- Francaviglia, Richard. *Hard Places: Reading the Landscape of America's Historic Mining Districts*. Iowa City, IA: University of Iowa Press, 1991.
- Greider, Thomas, and Lorraine Garkovich. "Landscapes: The Social Construction of Nature and the Environment." *Rural Sociology* 59 (1994): 1–21.

- Groth, Paul. "Landscape Orders: Frameworks for American Cultural Landscape History." Annual Meeting of the Association of American Geographers, 1985.
- Groth, Paul, and Todd W. Bressi, eds. *Understanding Ordinary Landscapes*. New Haven: Yale University Press, 1997.
- Hayden, Dolores. *The Power of Place: Urban Landscapes as Public History*. Cambridge, MA: MIT Press, 1995.
- Hiss, Tony. *The Experience of Place*. New York: Alfred A. Knopf, 1990.
- Hough, Michael. *City Form and Natural Process: Towards a New Urban Vernacular*. London: Croom Helm, 1984.
- . *Out of Place: Restoring Identity to the Regional Landscape*. New Haven: Yale University Press, 1990.
- Howe, Jim, Ed McMahon, and Luther Propst. *Balancing Nature and Commerce in Gateway Communities*. Washington, DC and Covelo, CA: Island Press, 1997.
- Jackson, John Brinckerhoff. *Discovering the Vernacular Landscape*. New Haven: Yale University Press, 1984.
- . *A Sense of Place, A Sense of Time*. New Haven: Yale University Press, 1994.
- Jackson, Peter. *Maps of Meaning: An Introduction to Cultural Geography*. London: Unwin Hyman, 1989.
- Knobloch, Frieda. *The Culture of Wilderness: Agriculture as Colonization in the American West*. Studies in Rural Culture Series. Chapel Hill, NC: University of North Carolina Press, 1996.
- Lennon, Jane and University of Canberra [Brian Egloff, Adrian Davey, and Ken Taylor]. "Conserving the Cultural Values of Natural Areas. A Discussion Paper." (Australia ICOMOS) 1999.
- Lewis, Peirce. "The Challenge of the Ordinary: Preservation and the Cultural Landscape." *Historic Preservation* 12 (1998), no. 2: 18–28.
- Lovett, Francis N. *National Parks: Rights and the Common Good*. Lanham, MD: Rowman and Littlefield, 1998.
- Lowenthal, David. *The Past is a Foreign Country*. Cambridge: Cambridge University Press, 1985.

- . *Possessed by the Past: The Heritage Crusade and the Spoils of History*. New York: The Free Press, 1996.
- McClelland, Linda Flint. *Building the National Parks: Historic Landscape Design and Construction*. Baltimore: Johns Hopkins University Press, 1998.
- Meinig, D.W., ed. *The Interpretation of Ordinary Landscapes: Geographical Essays*. New York: Oxford University Press, 1979.
- Mitchell, W.J.T., ed. *Landscape and Power*. Chicago: University of Chicago Press, 1994.
- Nassauer, Joan Iverson, ed. *Placing Nature: Culture and Landscape Ecology*. Washington, DC and Covelo, CA: Island Press, 1997.
- Noble, Allen G. *The North American Settlement Landscape. Volume 1: Houses*. Amherst, MA: University of Massachusetts Press, 1984.
- . *The North American Settlement Landscape. Volume 2: Barns and Farm Structures*. Amherst, MA: University of Massachusetts Press, 1984.
- Olwig, Kenneth R. "Recovering the Substantive Nature of Landscape." *Annals of the Association of American Geographers* 86 (1996): 630–653.
- . "Sexual Cosmology: Nation and Landscape at the Conceptual Interstices of Nature and Culture; or What Does Landscape Really Mean?" In *Landscape: Politics and Perspectives*, Barbara Bender, ed., 307–343. Oxford: Berg Press, 1993.
- Power, Thomas Michael. *Lost Landscapes and Failed Economies: The Search for a Value of Place*. Washington, DC and Covelo, CA: Island Press, 1996.
- Rowntree, Lester B. "The Cultural Landscape Concept in American Human Geography." In *Concepts in Human Geography*, Carville Earle, Kent Mathewson, and Martin S. Kenzer, ed., 127–159. Lanham, MD: Rowman and Littlefield Publishers, 1996.
- Russell, Emily W.B. *People and the Land through Time: Linking Ecology and History*. New Haven: Yale University Press, 1997.
- Schama, Simon. *Landscape and Memory*. New York: Alfred A. Knopf, 1995.
- Sellars, Richard West. *Preserving Nature in the National Parks: A History*. New Haven: Yale University Press, 1997.
- Turner, Frederick. *Spirit of Place: The Making of an American Literary Landscape*. Washington, DC: Island Press, 1989.

Tuxill, Jacquelyn L., and Nora J. Mitchell, eds. *Collaboration and Conservation: Lessons Learned in Areas Managed through National Park Service Partnerships*. Woodstock, VT: Conservation Study Institute, 2001.

Yamin, Rebecca, and Karen Bercherer Metheny, eds. *Landscape Archeology: Reading and Interpreting the American Historic Landscape*. Knoxville: University of Tennessee Press, 1996.

NATURAL RESOURCES THEORY AND PHILOSOPHY

Adams, W.M. "Creative Conservation, Landscapes and Loss." *Landscape Research* 21, no. 3 (1996): 265–276.

Bischoff, N.T., and R.H.G. Jongman. *Development of Rural Areas in Europe: The Claim for Nature*. Preliminary Report V79, SDU. The Hague: Netherlands Scientific Council for Government Policy, 1993.

Breshears, David D., and Fairley J. Barnes. "Interrelationships between Plant Functional Types and Soil Moisture Heterogeneity for Semiarid Landscapes within the Grassland/Forest Continuum: A Unified Conceptual Model." *Landscape Ecology* 14 (1999): 465–478.

Bürgi, Matthais. "A Case Study of Forest Change in the Swiss Lowlands." *Landscape Ecology* 14, no. 6 (1999): 567–575.

Duhme, Friedrich, and Stephan Pauleit. "Some Examples of Different Landscape Systems and Their Biodiversity Potential." *Landscape and Urban Planning* 41 (1998): 3–4, 249–261.

Grayson, J.E., M.G. Chapman, and A.J. Underwood. "The Assessment of Restoration of Habitat in Urban Wetlands." *Landscape and Urban Planning* 43, no. 4 (1999): 227–236.

Hostetler, Mark. "Scale, Birds, and Human Decisions: A Potential for Integrative Research in Urban Ecosystems." *Landscape and Urban Planning* 45, no. 1 (1999): 15–19.

Lackey, Robert T. "Seven Pillars of Ecosystem Management." *Landscape and Urban Planning* 40 (1998): 1–3, 21–30.

Mander, Ü., and R.H.G. Jongman, eds. "Human Impact on Rural Landscapes in Central and Northern Europe." *Landscape and Urban Planning* 41 (1998): 3–4.

- McNeely, Jeffrey A. "Coping with Change: People, Forests, and Biodiversity." *The George Wright Forum* 12, no. 3 (1995): 57–73.
- Meyer-Aurich, Andreas, Peter Zander, Armin Werner, and Reinhold Roth. "Developing Agricultural Land Use Strategies Appropriate to Nature Conservation Goals and Environmental Protection." *Landscape and Urban Planning* 41, no. 2 (1998): 119–127.
- Pan, Daiyuan, Gérald Domon, Sylvie de Blois, and André Bouchard. "Temporal (1958–1993) and Spatial Patterns of Land Use Changes in Haut-Saint-Laurent (Quebec, Canada) and their Relation to Landscape Physical Attributes." *Landscape Ecology* 14 (1999): 35–52.
- Phillips, Adrian. "Turning Ideas on Their Head: The New Paradigm of Protected Areas." *The George Wright Forum* 20, no. 2 (2003).
- Poiani, Karen M., et al. "A Scale-Independent, Site Conservation Planning Framework in The Nature Conservancy." *Landscape and Urban Planning* 43 (1998): 1–3, 143–156.
- Riley, Robert B. "Speculations on the New American Landscape." In *Re-reading Cultural Geography*, Kenneth E. Foote, Peter J. Hugill, Kent Mathewson, and Jonathan M. Smith, eds., 139–155. Austin: University of Texas Press, 1994.
- Rodiek, Jon E., and Eric G. Bolen, eds. "Wildlife Habitats in Human-Dominated Landscapes." *Landscape and Urban Planning* 38 (1997): 3–4.
- Ryan, Robert L. "Local Perceptions and Values for a Midwestern River Corridor." *Landscape and Urban Planning* 42 (1998): 2–4, 225–237.
- Shafer, Craig L. "National Park and Reserve Planning to Protect Biological Diversity: Some Basic Elements." *Landscape and Urban Planning* 44 (1999): 2–3, 123–153.
- Slocombe, D. Scott. "Lessons from Experience with Ecosystem-Based Management." *Landscape and Urban Planning* 40 (1998): 1–3, 31–39.
- Szaro, Robert C., William T. Sexton, and Charles R. Malone, eds. "Ecosystem Management." *Landscape and Urban Planning* 40 (1998): 1–3.
- Thackway, R., and K. Olsson. "Public/Private Partnerships and Protected Areas: Selected Australian Case Studies." *Landscape and Urban Planning* 44 (1999): 2–3, 87–97.
- Underwood, A.J. "Relationships between Ecological Research and Environmental Management." *Landscape and Urban Planning* 40 (1998): 1–3, 123–130.

Van Lier, H., ed. "Sustainable Land Use Planning." *Landscape and Urban Planning* 41 (1998): 2.

Young, Kenneth R. "Wildlife Conservation in the Cultural Landscapes of the Andes." *Landscape and Urban Planning* 38 (1997): 3–4, 137–147.

CULTURAL AND NATURAL RESOURCE MANAGEMENT

Al-Kodmany, K. "Using Visualization Techniques for Enhancing Public Participation in Planning and Design: Process, Implementation, and Evaluation." *Landscape and Urban Planning* 45 (1999): 37–45.

Australia ICOMOS. *Australia ICOMOS Charter for the Conservation of Places of Cultural Significance* [the Burra Charter]. Canberra: Australia ICOMOS, 1999.

Bennett, Andrew F. "Habitat Linkages—A Key Element in an Integrated Landscape Approach to Conservation." *Parks* 7, no. 1 (1997): 43–49.

Bennett, G., ed. *Towards a European Ecological Network*. Arnhem, The Netherlands: Institute for European Environmental Policy, 1991.

Bernbaum, Edwin. "Sacred Mountains: Implications for Protected Area Management." *Parks* 6, no.1 (1996): 41–48.

Boothby, John. "Framing a Strategy for Pond Landscape Conservation: Aims, Objectives, and Issues." *Landscape Research* 24, no. 1 (1999): 67–83.

Brown, Jessica, and Brent Mitchell. "Extending the Reach of National Parks and Protected Areas: Local Stewardship Initiatives." In *National Parks and Protected Areas: keystones to Conservation and Sustainable Development*, J.G. Nelson and R. Serafin, eds. NATO ASI Series, Vol. G 40. Berlin: Springer-Verlag, 1997.

Brown, Jessica, Nora Mitchell, and Fausto O. Sarmiento, eds. "Landscape Stewardship: New Directions in Conservation of Nature and Culture." *The George Wright Forum* 17, no. 1 (2000).

Buggey, Susan, and Genevieve Keller, eds. "Managing Cultural Landscapes," *APT Bulletin* 31, no. 4 (2000).

Chiarappa, Michael J. "Domesticated Waters: Delaware Bay Oystering's Science and Technology." *CRM: Cultural Resource Management* 21, no. 2 (1998): 11–12.

- Corbett, Tony, Marcus Lane, and Chris Clifford. *Achieving Indigenous Involvement in Management of Protected Areas: Lessons from Recent Australian Experience*. Aboriginal Politics and Public Sector Management Research, Paper no. 5. Griffith University, Centre for Australian Public Sector Management, 1998.
- Crook, Darren S., and Anne M. Jones. "Traditional Irrigation and Its Importance to the Tourist Landscape of Valais, Switzerland." *Landscape Research* 24, no. 1 (1999): 49–65.
- Davis, Frank W., David M. Stoms, and Sandy Andelman. "Systematic Reserve Selection in the USA: An Example from the Columbia Plateau Ecoregion." *Parks* 9, no. 1 (1999): 31–41.
- Dillon, David. "Deep in the Heart: How Does a Rural Region of Texas Preserve Its Character While Accommodating Change? The LBJ Heartland Council Blazes New Trails." *Historic Preservation* 45, no. 5 (1993): 28–37, 91.
- Eyring, Shaun. "Vegetation Management in Large Cultural Landscapes: Techniques for Preserving Historic Fields and Vistas." *Bulletin of the Association for Preservation Technology* 30, no. 1 (1999): 21–27.
- Eyring, Shaun, and Lucy Lawliss. "Preserving Battlefield Terrain: Technologies for Earthworks Management." *APT Bulletin* 31, no. 4 (2000): 13–19.
- Gobster, Paul H. "An Ecological Aesthetic for Forest Landscape Management." *Landscape Journal* 18, no. 1 (1999): 54–64.
- Goriup, Paul. "The Pan-European Biological and Landscape Diversity Strategy: Integration of Ecological Agriculture and Grassland Conservation." *Parks* 8, no. 3 (1998): 37–46.
- Green, Bryn. "Re-evaluating Nature: Cultural Landscape Conservation." *Built Environment* 23, no. 3 (1997): 210–20.
- Gustanski, Julie Ann, and Roderick H. Squires. *Protecting the Land: Conservation Easements Past, Present, and Future*. Washington, DC: Island Press, 2000.
- Harrison, Richard, ed. *Manual of Heritage Management*. Butterworth-Heinemann, 1994.
- Hunziker, Marcel, and Felix Kienast. "Potential Impacts of Changing Agricultural Activities on Scenic Beauty—A Prototypical Technique for Automated Rapid Assessment." *Landscape Ecology* 14, no. 2 (1999): 161–176.
- Jamieson, Walter, ed. *Conserving the Rural Landscape: A Symposium*. Calgary: Alberta Community Development and the Centre for Livable Communities, 1995.

- Jankowski, Achim, Wendy Shearer, and John E. Zvonar. "Micro-Drilling Devices for Landscape Conservation." *Bulletin of the Association for Preservation Technology* 30, no. 1 (1999): 37–41.
- Jardel, Enrique J., Eduardo C. Santana, and Sergio Graf. "The Sierra de Manantían Biosphere Reserve: Conservation and Regional Sustainable Development." *Parks* 6, no. 1 (1996): 14–22.
- Johnson, Martha, ed. *Lore: Capturing Traditional Environmental Knowledge*. Hay River, NWT: Dene Cultural Institute and the International Development Research Centre, 1992.
- Keller, Genevieve P. "The Inventory and Analysis of Historic Landscapes." *Historic Preservation Forum* 7, no. 3 (1993): 26–35.
- King, Michael, and Ueta Faasili. "A Network of Small, Community-Owned Village Fish Reserves in Samoa." *Parks* 8, no. 2 (1998): 11–16.
- Knight, Richard L., and Peter B. Landres, eds. *Stewardship across Boundaries*. Washington, DC and Covelo, CA: Island Press, 1999.
- Land Ethics and Dodson Associates. *Linking the Past to the Future: A Landscape Conservation Strategy for Waterford, Virginia*. Washington, DC: U.S. Department of the Interior, National Park Service, in cooperation with the Waterford Foundation, 1992.
- Larsen, Knut Einar, ed. *Nara Conference on Authenticity in Relation to the World Heritage Convention/Conference de Nara sur l'Authenticité dans le Cadre de la Convention du Patrimoine Mondial*. Japan: UNESCO World Heritage Centre, Agency for Cultural Affairs, ICCROM, and ICOMOS, 1995.
- Lewis, Peirce. "Common Landscapes as Historic Documents." In *History from Things: Essays on Material Culture*, Steven Lubar and W. David Kingery, eds. Washington, DC: Smithsonian Institution Press, 1993.
- Lucas, P.H.C. *Protected Landscapes: A Guide for Policy Makers and Planners*. London: Chapman and Hall, 1992.
- Mastran, Shelley. *Rural Conservation*. Washington, DC: National Trust for Historic Preservation, 1993.
- Meier, Lauren, and Nora J. Mitchell. "Principles for Preserving Historic Plant Material." *CRM: Cultural Resource Management* 13, no. 5 (1990): 1724.

- Mitchell, Nora J. "Cultural Landscapes: Concepts of Culture and Nature as a Paradigm for Historic Preservation." Ph.D. dissertation, Tufts University. Ann Arbor, MI: UMI Dissertation Services, 1996.
- Mitchell, Nora, and Katherine T. Lacy. "Cultural Landscapes: Reading Stories Written on the Land." *History News* 52, no. 3 (1997): 25–27.
- Mitchell, Nora, and Robert R. Page. "Managing the Past for the Future." *Historic Preservation Forum* 7, no. 3 (1993): 46–61.
- O'Donnell, Patricia. "The Treatment of Historic Landscapes." *Historic Preservation Forum* 7, no. 3 (1993): 36–45.
- Paine, Cecelia, and James R. Taylor. *Cultural Landscape Assessment: A Comparison of Rural Cultural Landscape Assessment Methods and Their Potential for Application within the Niagara Escarpment*. Guelph, ON: Landscape Research Group at Guelph, University of Guelph, 1995.
- Pärtel, Meelis, Riina Mändla, and Martin Zobel. "Landscape History of a Calcareous (Alvar) Grassland in Hanila, Western Estonia, during the Last Three Hundred Years." *Landscape Ecology* 14, no. 2 (1999): 187–196.
- Pepper, Charles. "Preserving Historic Woody Plants: Case Studies of the National Park Service." *Forum on Woody Plants in Historic Landscapes*. Boston: Arnold Arboretum of Harvard University, 1999.
- Phillips, Adrian. "The Nature of Cultural Landscapes—A Nature Conservation Perspective." *Landscape Research* 23, no. 1 (1998): 21–38.
- Pressey, R.L. "Applications of Irreplaceability Analysis to Planning and Management Problems." *Parks* 9, no. 1 (1999): 42–51.
- Putney, Allen, ed. "Non-Material Values of Protected Areas." *Parks* 10, no. 2 (2000).
- Stokes, Samuel N., A. Elizabeth Watson, and Shelley Mastran for the National Trust for Historic Preservation. *Saving America's Countryside: A Guide to Rural Conservation*. Baltimore: Johns Hopkins University Press, 1997.
- Taylor, Ken. "Reconciling Aesthetic Value and Social Value: Dilemmas of Interpretation and Application." *Bulletin of the Association for Preservation Technology* 30, no. 1 (1999): 51–55.
- Tunbridge, J.E., and G.J. Ashworth. *Dissonant Heritage: The Management of the Past as a Resource in Conflict*. Chichester and Toronto: John Wiley and Sons, 1996.

Tuxill, Jacquelyn L., et al., eds. *The Landscape of Conservation Stewardship: The Report of the Stewardship Initiative Feasibility Study*. Woodstock, VT: Marsh-Billings-Rockefeller National Historical Park, Conservation Study Institute, and The Woodstock Foundation, Inc., 2000.

Vernon, Noel Dorsey, and Charles E. Loggins. "Leimert Park's Plaza: Cultural Landscape Rehabilitation and Community Revitalization." *Bulletin of the Association for Preservation Technology* 30, no. 1 (1999): 9–14.

Von Droste, Bernd, Harald Plachter, and Mechtild Rössler, eds. *Cultural Landscapes of Outstanding Universal Value: Components of Global Strategy*. Jena: Gustav Fischer Verlag in cooperation with UNESCO, 1995.

Zaitzevsky, Cynthia. "The Historian and the Landscape." *Historic Preservation Forum* 7: 3 (1993): 16–25.

ENVIRONMENT AUSTRALIA

Australian Heritage Commission and the Australian Committee for IUCN. *Australian Natural Heritage Charter*. Sydney: Australian Heritage Commission, 1996.

Lennon, J. *Case Study of the Cultural Environment of the Central Victorian Goldfields*. State of the Environment Technical Paper Series. Canberra: Department of the Environment, Natural and Cultural Heritage, 1997.

Pearson, M., D. Johnston, J. Lennon, I. McBryde, D. Marshall, D. Nash, and B. Wellington. *Environmental Indicators for National State of the Environment Reporting: Natural and Cultural Heritage*. Canberra: State of the Environment, Environmental Indicator Reports, 1998.

COUNCIL OF EUROPE/EUROPEAN COMMISSION

Council of Europe. *Convention on the Conservation of European Wildlife and Natural Habitats*. Bern: European Treaty Series, no. 104, 1979.
<www.ecnc.nl/doc/europe/legislat/bernconv.html>

———. *European Landscape Convention*. 2000.
<<http://conventions.coe.int/treaty/en/treaties/html/176.htm>>

———. *Inventory and Cartography of Natural Biotopes in Europe: The Two Networks of Protected Areas of the Council of Europe*. PE-SEM/COR (91) 2. Document prepared by the Directorate of Environment and Local Authorities. Strasbourg: Council of Europe, 1991.

- . *Recommendation No. R (95) 9 of the Committee of Ministers to Member States on the Integrated Conservation of Cultural Landscape Areas as Part of Landscape Policies*. Strasbourg, Council of Europe, 1995.
- . *The European Network of Biogenetic Reserves B Resolutions*. Strasbourg, Council of Europe: 1992.
- . *The Emerald Network—A Network of Areas of Special Conservation Interest for Europe*. Document prepared by the Standing Committee for the Convention on the Conservation of European Wildlife and Natural Habitats. T-PVS (96). Strasbourg: Council of Europe, 7 January 1997.
<www.ecnc.nl/doc/lynx/publications/emerald.html>
- Council of Europe and CEC. *Map of Natural Vegetation of the Member States of the European Communities and the Council of Europe*. Scale 1:3.000.000. Explanatory notes by A. Noifalisse. Luxembourg: Office for Official Publications of the European Communities, 1987.
- Council of Europe, UNEP, and ECNC. *Pan-European Biological and Landscape Diversity Strategy B: A Vision for Europe's Natural Heritage*. Amsterdam: 1996.
<www.ecnc.nl/doc/europe/legislat/strafull.html>

European Commission. *Natura 2000 B European Commission DG XI's Nature Newsletter*. Issue 1–4, ISSN 1026-6151, DG-XI D.2, 1997.

U.S. NATIONAL PARK SERVICE

- Andrus, Patrick W. *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields*. National Register Bulletin 40. Washington, DC: U.S. Department of the Interior, National Park Service, 1992.
- Birnbaum, Charles A. *Protecting Cultural Landscapes: Planning, Evaluating, and Management of Historic Landscapes*. Preservation Brief 36. Washington, DC: U.S. Department of the Interior, National Park Service, 1994.
- Birnbaum, Charles A., and Robert R. Page, eds. "Thematic Issue on Landscape Interpretation." *CRM: Cultural Resource Management* 17, no. 7 (1994).
- Birnbaum, Charles A., with Christine Capella Peters, eds. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. Washington, DC: U.S. Department of the Interior, National Park Service, 1996.

- Derry, Anne, H. Ward Jandl, Carol D. Shull, and Jan Thormon. Rev. ed. by Patricia L. Parker. *Guidelines for Local Surveys: A Basis for Preservation Planning*. National Register Bulletin 24. Washington, DC: U.S. Department of the Interior, National Park Service, 1985.
- Firth, Ian. *Biotic Cultural Resources: Management Considerations for Historic Districts in the National Park System, Southeast Region*. Georgia: U.S. Department of the Interior, National Park Service, 1985.
- Greenberg, Ronald M., ed. "Thematic Issue on Historic Transportation Corridors." *CRM: Cultural Resource Management* 16, no. 11 (1993).
- Keller, J. Timothy, and Genevieve P. Keller. *How to Evaluate and Nominate Designed Historic Landscapes*. National Register Bulletin 18. Washington, DC: U.S. Department of the Interior, National Park Service, 1987.
- King, Thomas F., and Jan Townsend. *Through the Generations: Identifying and Protecting Traditional Cultural Places*. Video. Washington, DC: National Park Service et al., n.d.
- McClelland, Linda Flint, J. Timothy Keller, Genevieve P. Keller, and Robert Z. Melnick. *Guidelines for Evaluating and Documenting Rural Historic Landscapes*. National Register Bulletin 30. Washington, DC: U.S. Department of the Interior, National Park Service, 1998.
- Melnick, Robert Z., Daniel Sponn, and Emma J. Saxe. *Cultural Landscapes: Rural Historic Districts in the National Park System*. Washington, DC: U.S. Department of the Interior, National Park Service, 1984.
- National Park Service. *Cultural Resource Management Guideline, NPS-28*. Washington, DC: U.S. Department of the Interior, National Park Service, 1998.
- . *Guide to Sustainable Earthworks Management*. Washington, DC: U.S. Department of the Interior, National Park Service, 1998.
<<http://www.nps.gov/phso/sp/jeawoint.htm>>
- Noble, Bruce J., Jr., and Robert Spude. *Guidelines for Identifying, Evaluating, and Registering Historic Mining Properties*. National Register Bulletin 42: Washington, DC: U.S. Department of the Interior, National Park Service, 1992.
- Nowakowski, H. Matthew. "Bringing the Past into the Future: New Technologies for CRM." *CRM: Cultural Resource Management* 21, no. 5 (1998).

Page, Robert R., Cathy A. Gilbert, and Susan A. Dolan. *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques*. Washington, DC: U.S. Department of the Interior, National Park Service, 1998.

Parker, Patricia L., and Thomas F. King. *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. National Register Bulletin 38. Washington, DC: U.S. Department of the Interior, National Park Service, 1990.

Potter, Elisabeth Walton, and Beth Boland. *Guidelines for Evaluating and Registering Cemeteries and Burial Places*. National Register Bulletin 41. Washington, DC: U.S. Department of the Interior, National Park Service, 1992.

Westmacott, Richard. *Managing Culturally Significant Agricultural Landscapes within the National Park System*. Draft. Washington, DC: U.S. Department of the Interior, National Park Service, 1997.

PARKS CANADA

Buggey, Susan. "An Approach to Aboriginal Cultural Landscapes." Agenda paper for Historic Sites and Monuments Board of Canada, Parks Canada, 1999.

Buggey, Susan, and Joann Latremouille. *Cultural Landscapes/Cultural Resources*. Video. Ottawa: Parks Canada, 1997.

Doull, Ian. "Commemoration of Rural Historic Districts." Agenda paper for Historic Sites and Monuments Board of Canada, Parks Canada, 1994.

Parks Canada. *Guiding Principles and Operational Policies*. Ottawa: Department of Canadian Heritage, 1994.
<http://www.parksCanada.gc.ca/docs/pc/poli/princip/part2/part2d1_e.asp>

Stovel, Herb, with Julian Smith. *FHBRO Code of Practice*. Edited by Jean-Pierre W. Landry and Lyette Fortin. Ottawa: Ministry of Supply and Services, Federal Heritage Buildings Review Office, 1996.

UNESCO

UNESCO. *Biosphere Reserves: The Seville Strategy and the Statutory Framework for the World Network*. Paris: UNESCO, 1996.

UNESCO, World Heritage Convention. *Operational Guidelines for the Protection of the World Cultural and Natural Heritage*. Paris: UNESCO, 1996.
<www.unesco.org/whc>

UNESCO. *Convention Concerning the Protection of the World Cultural and Natural Heritage*. Paris: UNESCO, 1997. <www.unesco.org/whc/world_he.htm>

———. *The Statutory Framework of the World Network of Biosphere Reserves*. Paris: UNESCO, 1997. <www.unesco.org/mab>

**IUCN—THE WORLD CONSERVATION UNION
(INCLUDES WORLD COMMISSION ON PROTECTED AREAS)**

Beltrán, Javier, ed. *Indigenous and Traditional Peoples and Protected Areas: Principles, Guidelines, and Case Studies*. Best Practice Protected Area Guidelines Series no. 4. Gland, Switzerland and Cambridge UK: IUCN—The World Conservation Union, World Commission on Protected Areas, 2000.

Davey, Adrian G. *National System Planning for Protected Areas*. Best Practice Protected Area Guidelines Series no. 1. Gland, Switzerland and Cambridge UK: IUCN—The World Conservation Union, World Commission on Protected Areas, 1998.

Hockings, Marc, with Sue Stolton and Nigel Dudley. *Evaluating Effectiveness: A Framework for Assessing the Management of Protected Areas*. Best Practice Protected Area Guidelines Series No. 6. Gland, Switzerland and Cambridge, UK: IUCN—The World Conservation Union, World Commission on Protected Areas, 2000.

Kelleher, Graeme, ed. *Guidelines for Marine Protected Areas*. Best Practice Protected Area Guidelines Series no. 3. Gland, Switzerland and Cambridge, UK: IUCN—The World Conservation Union, World Commission on Protected Areas, 1999.

Task Force on Economic Benefits of Protected Areas of the World Commission on Protected Areas of IUCN, in collaboration with the Economics Service Unit of IUCN. *Economic Values of Protected Areas: Guidelines for Protected Area Managers*. Best Practice Protected Area Guidelines Series no. 2. Gland, Switzerland and Cambridge, UK: IUCN—The World Conservation Union, World Commission on Protected Areas, 1998.

Task Force on Financing Protected Areas of the World Commission on Protected Areas of IUCN. *Financing Protected Areas: Guidelines for Protected Area Managers*. Best Practice Protected Area Guidelines Series no. 5. Gland, Switzerland and Cambridge, UK: IUCN—The World Conservation Union, World Commission on Protected Areas, 2000.

SPECIFIC SITE STUDIES

- Adams, Clare. "Recovering from a Devastating Tornado at Andrew Jackson's Hermitage: A Case Study." *Bulletin of the Association for Preservation Technology* 30, no. 1 (1999): 43–49.
- Engle, Reed L. "Shenandoah—Managing Cultural Resources in a National Park." *CRM: Cultural Resource Management* 21, no. 1 (1998).
- Fanning, Kay, and Maureen Joseph. "Discovering Dumbarton Oaks Park: Restoring a Masterwork for Modern Needs." *APT Bulletin* 30 (1999): 2–3, 61–66.
- Firth, Ian, and Marianne Cramer. "A Case Study in Ecosystems and Preservations: Lessons Learned from New York's Central Park." *Bulletin of the Association for Preservation Technology* 30, no. 1 (1999): 15–20.
- Keane, Robert E., Penelope Morgan, and Joseph D. White. "Temporal Patterns of Ecosystem Processes on Simulated Landscapes in Glacier National Park, Montana, USA." *Landscape Ecology* 14 (1999): 311–329.
- McGuire, Diane Kostial. *Beatrix Farrand's Plant Book for Dumbarton Oaks*. Washington, DC: Dumbarton Oaks, Trustees for Harvard University, 1980.
- Meier, Lauren. "Restoring Fairsted's Woody Plants." *Forum on Woody Plants in Historic Landscapes*. Boston: Arnold Arboretum of Harvard University, 1999.
- Meier, Lauren. "Restoring Landscape Character at Fairsted, the Frederick Law Olmsted National Historic Site." *Bulletin of the Association for Preservation Technology* 30, no. 1 (1999): 29–35.
- Moss, Michael R., and Robert J. Milne. "Biophysical Processes and Bioregional Planning: The Niagara Escarpment of Southern Ontario, Canada." *Landscape and Urban Planning* 40 (1998): 251–268.
- Olmsted Center for Landscape Preservation cultural landscape publication series.
<<http://www.nps.gov/frla/publications.htm>>
- O'Rourke, Eileen. "The Causse Méjan: Changing Relationships between Agriculture, Environment, and Society within a French National Park." *Landscape Research* 24, no. 2 (1999): 141–165.
- Toth, Edward. *An Ecosystem Approach to Woodland Management: The Case of Prospect Park*. Bethesda, MD: National Association for Olmsted Parks, 1991.

APPENDIX A

INTERVIEW GUIDE

In the first phase of this project, 29 interviews were conducted with professionals working at 12 different sites, and eight case studies chosen to present in this document. Before conducting the interview, researchers obtained relevant management and planning documents from the site, and interviewees were sent a set of questions to consider. The tools, approaches, and lessons learned that are described in this document were derived from all of the interviews, regardless of whether or not the interview site was selected for a case study.

Interview Questions:

1. Please describe your site's mission/goals.
2. What is the role of the cultural landscape within this mission?
3. Site description. What are the key cultural and natural landscape features?
4. Do you have a landscape management plan(s) in place? What are the goals of the plan(s)?
5. What were the underlying motivations and circumstances leading to the management program, its accomplishments, and long-term vision?
6. What disciplines/types of personnel/areas of expertise are involved in the landscape management program(s)?
7. How are cultural and natural landscape management needs balanced or integrated?
8. What are the two or three most important issues you face as a manager trying to integrate concerns about natural resources into cultural landscape management?
9. How are management decisions made at your site? How do you identify your options/choices and then weigh these options? Do you bring other organizations or individuals into the decisionmaking process?
10. Have you ever run into controversy at your site trying to balance the management of cultural and natural resources? How have you dealt with the conflict(s)?
11. When carrying out research, planning, or stewardship activities at your site (e.g., inventories, monitoring), have you been able to integrate cultural and natural resource disciplines during the various phases of your work? Why or why not? Which phases?

12. Have you developed/adopted/adapted any management principles or formal procedures specifically for your site or from other sources?
13. Description of management budget, funding mixes, and in-kind/matching funds. How are funds distributed for managing natural and cultural resources?
14. How do you measure progress or evaluate success of management program(s)?
15. Discuss any major impediments to success, including support that would have been helpful but hasn't been available.
16. What lessons have you learned?
17. How do you network with other managers doing similar work/facing similar challenges (e.g., professional societies, journals)?
18. Further suggestions for this study, such as:
 - Other individuals who should be interviewed at your site.
 - Other applicable sites for interviews.
 - Other sources of information.
 - Products that would be most useful to you as a manager.
 - Ideas for future programs.
19. Would you be willing to have your contact information listed in the handbook so that you could serve as a resource to others?

APPENDIX B

NATIONAL PARK SERVICE DEFINITIONS FOR CULTURAL LANDSCAPE TYPES

The definition for cultural landscape currently used by the National Park Service is:

a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. (*Cultural Resource Management Guidelines, NPS-28*)

National Park Service typology:

Historic site: the location of a significant event or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.

Historic designed landscape: a landscape having historic significance as a design or work of art because it was consciously designed and laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or by an owner or other amateur using a recognized style or tradition in response or reaction to a recognized style or tradition; has a historic association with a significant person or persons, trend, or event in landscape gardening or landscape architecture; or a significant relationship to the theory and practice of landscape architecture.

Historic vernacular landscape: a landscape whose use, construction, or physical layout reflects endemic traditions, customs, beliefs, or values; in which the expression of cultural values, social behavior, and individual actions over time is manifested in the physical features and materials and their interrelationships, including patterns of spatial organization, land use, circulation, vegetation, structures, and objects; and in which the physical, biological, and cultural features reflect the customs and everyday lives of people.

Ethnographic landscape: a landscape traditionally associated with a contemporary ethnic group, typically used for such activities as subsistence hunting and gathering, religious or sacred ceremonies, and traditional meetings. (NPS Preservation Brief No. 36, *Protecting Cultural Landscapes: Planning, Treatment, and Management of Historic Landscapes*)

APPENDIX C

WORLD HERITAGE CONVENTION DEFINITIONS OF CULTURAL LANDSCAPES

35. With respect to *cultural landscapes*, the Committee has furthermore adopted the following guidelines concerning their inclusion in the World Heritage List.

36. Cultural landscapes represent the “combined works of nature and of man” designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic, and cultural forces, both external and internal. They should be selected on the basis both of their outstanding universal value and of their representativity in terms of a clearly defined geo-cultural region and also for their capacity to illustrate the essential and distinct cultural elements of such regions.

37. The term “cultural landscape” embraces a diversity of manifestations of the interaction between humankind and its natural environment.

38. Cultural landscapes often reflect specific techniques of sustainable land-use, considering the characteristics and limits of the natural environment they are established in, and a specific spiritual relation to nature. Protection of cultural landscapes can contribute to modern techniques of sustainable land-use and can maintain or enhance natural values in the landscape. The continued existence of traditional forms of land-use supports biological diversity in many regions of the world. The protection of traditional cultural landscapes is therefore helpful in maintaining biological diversity.

39. Cultural landscapes fall into three main categories, namely:

- i. The most easily identifiable is the clearly defined landscape designed and created intentionally by man. This embraces garden and parkland landscapes constructed for aesthetic reasons which are often (but not always) associated with religious or other monumental buildings and ensembles.
- ii. The second category is the organically evolved landscape. This results from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. Such landscapes reflect that process of evolution in their form and component features. They fall into two sub-categories:
 - a relict (or fossil) landscape is one in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form.

- a continuing landscape is one which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress. At the same time it exhibits significant material evidence of its evolution over time.

iii. The final category is the associative cultural landscape. The inclusion of such landscapes on the World Heritage List is justifiable by virtue of the powerful religious, artistic, or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent.

40. The extent of a cultural landscape for inclusion on the World Heritage List is relative to its functionality and intelligibility. In any case, the sample selected must be substantial enough to adequately represent the totality of the cultural landscape that it illustrates. The possibility of designating long linear areas which represent culturally significant transport and communication networks should not be excluded.

41. The general criteria for conservation and management laid down in paragraph 24.(b).(ii) above are equally applicable to cultural landscapes. It is important that due attention be paid to the full range of values represented in the landscape, both cultural and natural. The nominations should be prepared in collaboration with and the full approval of local communities.

42. The existence of a category of “cultural landscape,” included on the World Heritage List on the basis of the criteria set out in paragraph 24 above, does not exclude the possibility of sites of exceptional importance in relation to both cultural and natural criteria continuing to be included. In such cases, their outstanding universal significance must be justified under both sets of criteria. (UNESCO. *World Heritage Convention. Operational Guidelines for the Implementation of the World Heritage Convention*. Paris: UNESCO, 1996.)

APPENDIX D

NATIONAL REGISTER BULLETINS RELEVANT TO CULTURAL LANDSCAPES

- U.S. Department of the Interior. National Park Service. *Guidelines for Evaluating and Documenting Rural Historic Landscapes*, by Linda Flint McClelland, J. Timothy Keller, Genevieve P. Keller, and Robert Z. Melnick. National Register Bulletin 30. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1990.
- . *Guidelines for Evaluating and Documenting Traditional Cultural Properties*, by Patricia L. Parker and Thomas F. King. National Register Bulletin 38. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1990.
- . *Guidelines for Evaluating and Registering Cemeteries and Burial Places*, by Elisabeth Walton Potter and Beth Boland. National Register Bulletin 41. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1992.
- . *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields*, by Patrick W. Andrus. National Register Bulletin 40. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1992.
- . *Guidelines for Identifying, Evaluating, and Registering Historic Mining Properties*, by Bruce J. Noble, Jr., and Robert Spude. National Register Bulletin 42. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1992.
- . *Guidelines for Local Surveys: A Basis for Preservation Planning*, by Anne Derry, H. Ward Jandl, Carol D. Shull, and Jan Thorman. Rev. ed. by Patricia L. Parker. National Register Bulletin 24. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1985.
- . *How to Apply National Register Criteria for Evaluation*. Rev. ed. National Register Bulletin 15. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1991.
- . *How to Evaluate and Nominate Designed Historic Landscapes*, by J. Timothy Keller and Genevieve P. Keller. National Register Bulletin 18. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1987.
- . *Researching a Historic Property*, by Eleanor O'Donnell. National Register Bulletin 39. Washington, D.C.: U.S. Department of the Interior, National Park Service, 1991.

APPENDIX E

LIST OF INTERVIEWEES

Biscayne National Park

Jim Adams, Cultural Resources Specialist (interviewed 1/19/01)

Blue Ridge Parkway

Gary W. Johnson, Chief, Resource Planning and Professional Services Division
(interviewed 10/19/00)

Laura Rotegard, Community Planner, Resource Planning and Professional Services
Division (interviewed 10/19/00)

Delaware Water Gap National Recreation Area

Shaun Eyring, Landscape Architect, NPS Philadelphia Support Office (interviewed
10/24/00)

Patrick Lynch, Resource Management Division Chief (interviewed 12/21/00)

Zehra Osman, Park Planner (interviewed 9/29/00)

Gettysburg National Military Park

Deborah Darden, Chief of Resources Management (interviewed 10/23/00)

Bert Frost, Natural Resource Specialist (interviewed 9/12/00)

Grey Towers National Historic Landmark (U.S. Forest Service)

Jennifer Wellington, Landscape Curator (interviewed 8/31/00)

Kellogg House

Gene Graham (interviewed 12/21/00)

Louisville Olmsted Parks

Patricia O'Donnell, LANDSCAPES (interviewed 6/12/01)

Lyndon B. Johnson National Historical Park

Dale Scheier, Chief of Maintenance (interviewed 12/11/00)

John Tiff, Historian (retired) (interviewed 9/8/00)

Marsh-Billings-Rockefeller National Historical Park

John Gilbert, Facility Manager (interviewed 8/3/00)

Kyle Jones, Park Resources Manager (interviewed 7/27/00)

Mt. Rainier National Park

Greg Burchard, Cultural Resource Specialist (interviewed 1/25/01)

Laurie Kurth, Plant Ecologist (interviewed 2/1/01)

The Presidio of San Francisco, Golden Gate National Recreation Area

Michael Alexander, Golden Gate National Recreation Area Citizen Advisory Commission (interviewed 4/24/01)
Michael Boland, Landscape Architect, Presidio Trust (interviewed 1/8/01)
Ric Borjes, Chief of Cultural Resources and Museum Management Division, Golden Gate National Recreation Area (interviewed 2/6/01)
Peter Ehrlich, Forestry Manager, Presidio Trust (interviewed 12/19/00)
Carey Feierabend, Planning Manager, Presidio Trust (interviewed 10/16/00)
Peter Owens, former Planner, Presidio Trust (interviewed 10/19/00)
Carol Prince, Deputy Director, Golden Gate National Parks Association (interviewed 5/15/01)
Nick Weeks, Historic Landscape Architect, Golden Gate National Recreation Area (interviewed 12/14/00)

Tallgrass Prairie National Preserve

Steve Miller, Superintendent (interviewed 11/10/00)

Yosemite National Park

Randy Fong, Historic Architect (interviewed 1/17/01)
Sue Fritzke, Supervisory Resources Management (Natural) (interviewed 12/20/00)
Russell Galipeau, Chief of Resources Management (interviewed 1/4/01)
Laura Kirn, Park Archaeologist (interviewed 1/11/01)

APPENDIX F

SOURCE MATERIALS FOR CASE STUDIES

Blue Ridge Parkway

Blue Ridge Parkway Official Map and Guide.

Briefing Paper on Viewshed Analysis.

Johnson, Gary, Will Orr, and Laura Rotegard. "A Process for Scenic Quality Analysis along the Blue Ridge Parkway," March 1997.

Lindsey, Nancy. "Blue Ridge Parkway Study Identifies Top Views in County, Urges Protection." *The Enterprise*, 7 July 1999.

Resource Planning and Professional Services Division of the Blue Ridge Parkway. "Thoughts on Implementing Citizen Assessments." Photocopy.

Resource Planning and Professional Services Division of the Blue Ridge Parkway. "Scenic Quality along the Blue Ridge Parkway in Grayson County, Virginia: A Report Prepared by the Resource Planning and Professional Services Division of the Blue Ridge Parkway," December 1998.

"Strategic Plan for the Blue Ridge Parkway, 1997-2002."

U.S. Department of the Interior. National Park Service. *Corridor Management Plan: Phase One. Blue Ridge Parkway. Virginia/North Carolina*, 30 June 1996.

"Visual Sensitivity Mapping of the Blue Ridge Parkway Adjacent Lands, Asheville, North Carolina and Roanoke, Virginia," December 1995. Draft Report.

Delaware Water Gap National Recreation Area

"Delaware Water Gap National Recreation Area General Management Plan Summary," 1987.

Eyring, Shaun. "Vegetation Management in Large Cultural Landscapes: Techniques for Preserving Historic Fields and Vistas." *APT Bulletin* 30, no. 1 (1999).

Gettysburg National Military Park

"Final GMP/EIS, Volume 1, Gettysburg National Military Park," June 1999.

Lyndon B. Johnson National Historical Park

Cooperative Park Studies Unit, Department of Recreation and Parks, Texas A&M University. *Cultural Landscape Report Analysis of Historical Vegetation, Lyndon B. Johnson National Historical Park*. Technical Report No. 4, August 1986.

"Final GMP/EIS, Lyndon B. Johnson National Historical Park," March 1999.

Harris, Marvin. "Taming the Wild Pecan at Lyndon B. Johnson National Historical Park." *Park Science* 19, no. 2 (December 1999): 1, 20-21.

The Presidio

- “Creating a Park for the Twenty-first Century, Final General Management Plan Amendment,” July 1994.
- “Draft Vegetation Management Plan,” July 1999.
- “Final GMPA/EIS,” July 1994.
- “Historic Forest Characterization and Treatment Project Workshop Summary.” Olmsted Center for Historic Landscape Preservation. “Presidio Forest Historic Characterization and Treatment Study,” September 2000.
- “Summary of the Proposed Presidio Vegetation Management Plan: Maintaining a Rich Tapestry of Natural and Historic Landscapes at the Golden Gate,” Summer 1999.
- “Vegetation Management Plan and Environmental Assessment, Staff Report, Summary of Public Comment on the Draft Plan, and Recommendations for Preparation of the Final Plan,” October 2000.
- “Vegetation Management Plan and Environmental Assessment, Appendix to the Staff Report, Analysis of Public Comment Received,” October 2000.

Marsh-Billings-Rockefeller National Historical Park

- “Draft General Management Plan/Draft Environmental Impact Statement,” April 1998.
- Marts, Christina. "First HALS Project Launched." ASLA Historic Preservation Bulletin 12, no.2 (2002).

Tallgrass Prairie National Preserve

- “Final GMP/EIS, Tallgrass Prairie National Preserve,” September 2000.
- Conard, Rebecca, and Susan Hess. *Tallgrass Prairie National Preserve Legislative History, 1920-1996*. Prepared by Tallgrass Historians L.C. for National Park Service Midwest Support Office, 1998, 21. Unpublished.

Yosemite National Park

- National Register nomination form for the Yosemite Valley.
- “Yosemite Valley Plan,” November 2000.

APPENDIX G

WEB SITES RELEVANT TO CULTURAL LANDSCAPES

IUCN World Commission on Protected Areas

(<http://www.iucn.org/themes/wcpa/wcpa/protectedareas.htm>)

National Register of Historic Places

(<http://www.cr.nps.gov/places.htm>)

National Historic Landmarks

(<http://www.cr.nps.gov/landmarks.htm>)

World Heritage List

(<http://whc.unesco.org/heritage.htm>)

World Heritage Cultural Landscapes

(<http://whc.unesco.org/exhibits/cultland/ref.htm>)

National Park Service Historic Landscape Initiative

(<http://www2.cr.nps.gov/hli/>)

National Park Service Cultural Landscapes

(<http://www.cr.nps.gov/landscapes.htm>)