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University of Pennsylvania

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THE EVOLUTION OF THE HISTORIC STRUCTURE REPORT:
A REVIEW OF ITS PAST AND A LOOK AT ITS FUTURE

Megan Cross Schmitt
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Advisor
John Hinchman
Lecturer

Program Chair
Frank G. Matero
Professor of Architecture
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CHAPTER 1: INTRODUCTION

Innovation has always played an important role in the field of historic preservation. The interdisciplinary nature of the activities associated with preservation has been critical in challenging professionals to think creatively and to employ a wide variety of tools, techniques and methodologies. In today’s world the use of new technologies is all around us, in our pockets, homes, classrooms, and offices. Individuals are becoming increasingly self-sufficient through a powerful combination of more affordable and user-friendly computers and software. It is time for preservation practitioners to look once again at the innovations being developed in allied fields and beyond. While collaboration across disciplines is well established in historic preservation, the tools of many trades are changing fast.

The purpose of this thesis is to examine the evolution of the National Park Service’s historic structure report (HSR). The review will serve to better understand this important document’s goals and uses. It will also provide an opportunity to envision the ways in which the HSR can be updated with an improved integration of technology. Given the changing nature of the tools with which historic preservation professionals work, it is a critical moment to re-evaluate the strengths and weaknesses of the current historic structure report guidelines. Consideration must be given to how the new technology
associated with a dynamic, user-driven internet, can be incorporated into a more effective and far-reaching digital preservation archive.

The second chapter of this investigation begins with an overview of the origin and evolution of the HSR. By establishing the values with which the report was initially developed, it creates an opportunity to ask how the current guidelines reflect these goals, and also how things have changed. The third chapter follows with a careful look at the findings and influence of the HSR Task Force, appointed in 1990 by the National Park Service. The impact that the Task Force recommendations had on future revisions to the historic structure report shows that change is a necessary part of the success and survival of the document. The fourth chapter briefly summarizes the current HSR guidelines as found in the NPS policy Director’s Order #28: Cultural Resource Management.

Starting with the fifth chapter, this investigation turns to the exploration of technology in the realm of cultural heritage. Previous uses of digital information management techniques by the National Park Service and others will be described. Concrete examples will be given to show how web-driven technologies have already been utilized to enhance the management, analysis and dissemination of data. Returning the discussion to the historic structure report, chapter six will show not only how the tools illustrated could be
applied to the HSR, but how doing so may actually help NPS help achieve their mission to protect and preserve the country’s cultural resources.

It should be acknowledged that the HSR is both a formal National Park Service report as well as a concept within the field of cultural resource management. For the purposes of this thesis, the investigation will concentrate on how the HSR evolved specifically within the context of NPS. There are a few reasons for such a decision.

To begin with, this thesis is attempting to lay a foundation so that real advances can be made in how the historic structure report – whether within or outside of NPS – is approached and envisioned. However, before changes can be considered, the history of the inception, definition, and use of the report must be carefully examined so that the concepts behind it are clear. While the fact that the historic structure report originated within the National Park Service is important, it is not as critical as the many years the agency has spent revising its preparation guidelines. This consistent review process leaves a vital trail of evidence that allows the variations on this one same theme - the historic structure report – to be contextualized and analyzed. Furthermore, as will be seen, people feel strongly about whether the principal role of the HSR is for the management or the documentation of a site. While this debate may seem odd to someone who works with a conceptual HSR outside of specific NPS guidelines, the layers of
policy that surround the report do sometimes lead to an *either/or* scenario. It is, in many ways, precisely because of this *either/or* scenario, that the use of technology presents itself as a necessary tool in cultural resource information management. A new opportunity for flexibility now exists that has yet to be considered in the HSR preparation guidelines. Working with internet-based technologies offers diverse users the chance to access, examine, and analyze the same information yet from many different approaches. This thesis will show that the time has come to once again evaluate and revise the guidelines surrounding this important document to reflect the undeniable changes that have occurred in the field of historic preservation due to the impact of technology.
CHAPTER 2:
THE EVOLUTION OF THE HISTORIC STRUCTURE REPORT

2.1 THE ORIGINS OF THE HSR

The National Park Service 1935 publication, *The Physical History of the Moore House, 1930-1934* is almost unanimously acknowledged to be the first historic structure report.1 The document, written by Charles E. Peterson, was produced after work had been done to restore the Moore House, a resource of the Colonial National History Park. Over the next several years, NPS continued generating reports similar to Peterson’s, as a way to compile both the archival and physical material available about a historic structure. As one scholar notes, these reports “established a National Park Service precedent...[underscoring] the importance of documenting for future researchers.”2

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In 1957, the director of the Park Service, Conrad L. Wirth, created an organization-wide format for what he referred to as the “Historic Building Report.” The format for the report required the following sections: Administrative Data, Historical Data, Architectural Data, Archaeological Data, Landscape Data, and Furnishings and Exhibits Data (Fig. 1).

**Figure 1.** 1957 Organizational structure of the Historic Buildings Report Form.

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3 Ibid.
A year later the term “Historic Structure Report” appeared in a memo and has remained in use ever since.\(^4\) Despite being an official National Park Service document, the concept as well as the name was embraced widely throughout the field of historic preservation.

In 1963 the *Historic and Prehistoric Structures Handbook* was released. It offered a detailed description of when it was necessary to produce a historic structure report (HSR) and a guideline for the now three required sections of the document.\(^5\) In terms of organization, Parts One and Two shared the same overall structure, requiring an approval sheet, a title and table of contents, and then a separate section for each of the data sections listed above (See Appendix B). As will be explained shortly, part three had its own simpler organization.

Part One of the report was to introduce the proposed work to be done to the building, as well as evidence supporting the structure’s historic and/or architectural significance. What follows is a brief summary of the content for each of the six data categories, which will be discussed in further detail in the analysis section of the HSR.

\(^4\) Ibid.  
\(^5\) Ibid., 9.
The Administrative Data section required such information as the name and number of the building, the proposed use of the structure, and an initial estimate of the cost for the treatment intended.\(^6\) The Historical Data section called for a “brief statement of local tradition and hearsay regarding [the] structure,” and a summary of the “readily available documentary evidence.”\(^7\) For applicable sites, the Archaeological Data section required a list of archaeological reports already written about the proposed work, a comment about future research (if it was being considered), and a cost estimate. Landscape Data included a summary of any remaining physical evidence, a review of the history of walks, paths, roads, etc., from “readily available documentary evidence,” and a description of future research and associated costs.\(^8\) Finally, the Furnishing and Exhibition Data (when applicable) called for an evaluation of the structure’s historic furnishings, a plan for how proposed refurnishing would be paid for, and a cost estimate.

If the proper approval was given, Part Two of the historic structure report was prepared. The purpose of this section was to present the “basic information necessary to proceed


\(^8\) Ibid.
with the final construction drawings, specifications, and proposed work.” As mentioned before, Part Two followed the same organizational structure as Part One. This time the goal was to supplement the same six data categories, either with more thorough research or with the results from the investigations that had been recommended in Part One. For example, the Historical Data section stated that, “reasonable efforts should be made to exhaust the documentary evidence” available. Likewise, the Architectural and Landscape Data sections called for the detailed documentation of existing fabric and conditions. The Archaeological and Furnishings Data sections were to include the results of the evidence collected during the completion of the surveys recommended in Part One.

Part Three was prepared after the restoration work to the building was finished. Photographs comparing the structure “before” and “after” were required, again with the idea of helping future researchers. This final part of the report was intended as an archive documenting both the evolutionary evidence found at the beginning of the process, as well as the subsequent changes that were made with these findings in mind. The level of detail required was “sufficient [enough] for interpretation and maintenance purposes.”

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9 Ibid.  
10 Ibid.  
11 Ibid., 11.
2.2 The Evolution of the Report

A few years later another revision was made to the format of the HSR. Beginning with the 1971 release of the Activities Standards, all documentation concerning any treatment done to a building would be written up in a new and separate publication entitled Historic Structure Preservation Guide. Much like Part Three of the previous format, this report would serve mainly as a maintenance guide for site managers. In the release, the document is described as being “tailored to the individual needs of a restored or reconstructed structure, from which park management may obtain guidance for continuing normal maintenance and minor repairs.”12 Information such as drawings, technical specifications, repair schedules and guidelines, and other material relevant to maintenance were included in the Historic Structure Preservation Guide. The revised version of the HSR was then simplified to contain an Administrative Section, a Historical Data Section, an Archaeological Data Section and an Architectural Data Section (Fig. 2).13

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12 Ibid., 12.
13 Ibid., 8.
The 1971 changes streamlined the approval process used in the previous version of the historic structure report. The increasing depth of research that had before been completed between Parts One and Two was now simply undertaken from the beginning. In these terms, a structure’s background information was still categorized as Historical Data, and a summary of existing conditions was still addressed in the Architectural Data Section. The difference now was that these elements would be compiled into the same report rather than having to be put through the approval process used before.
Along with the introduction of the *Historic Structure Preservation Guide*, one other important change was introduced in 1971. It was determined that any historical data that was critical to the building but not specifically relevant to the proposed treatment would be compiled in a new and separate report.\(^\text{14}\) This modification, though seemingly modest, will be revisited in the analysis section as an example of the changing understanding and evolving goals of the HSR.

The next restructuring of the report happened in 1979, and was specifically intended for HSRs written as a part of the Historic Preservation Fund.\(^\text{15}\) The guidelines began by stating that, “The following professional standards and requirements for historical, architectural and archaeological documentation have been established to insure that…properties listed in the National Register are preserved…in a historically accurate and professional manner.”\(^\text{16}\) This focus on standardization is reinforced in some of the changes made to the format of the report.

\(^{14}\) Ibid., 12.  
\(^{15}\) The Historic Preservation Fund was established under the 1966 National Historic Preservation Act. Congress approves money for use by local, state and tribal governments to help win matching grants in order to fund preservation efforts.  
\(^{16}\) Ibid., 13.
The new version strayed from past categorizations of data (such as Administrative, Historical, Architectural, etc.) and instead broke the report down into more specific deliverables (Fig. 3).

**Figure 3.** 1979 organizational structure of the Historic Structure Report as revised by the Historic Preservation Fund Grant Management Manual.

The guidelines used perhaps the most precise language to date in order to define the recommended content of a historic structure report. Sections such as Construction History, Contemporary Descriptions, Alterations and Changes, Existing Conditions, and Interior of Building brought a clearer sense of chronology to the format of the actual report. Concise bullet points under each section provided highly specific examples of the
themes to be address and/or sources to be consulted (See Appendix D). A brief set of suggestions concerning how and when to appropriately use historical and architectural documentation was also included in the guidelines. Overall, years of re-evaluation plus the need to standardize methodology created the most specific and condensed format yet for the historic structure report.

2.3 Director’s Order #28 and the Contemporary HSR

In 1980, the National Park Service published Release No. 1 of the Cultural Resource Management Guideline (NPS-28), which despite several revisions over the years, is still in use today. The HSR’s organizational structure was once again changed to re-establish three required sections for the report: an Administrative Data section, a Physical History and Analysis section, and an Appendix (see Fig. 4).17

One scholar explains that the new format “encouraged a multidisciplinary working relationship that would lead to integrated recommendations to park management.”

The suggested content of the “Administrative Data Section” was not significantly different than what was seen in the previous guideline for the HSR. The most notable

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change was that the individual “deliverables” from the 1979 revision were once again categorized into one separate section of the report, this time entitled the “Physical History and Analysis Section.” The revised format called for such critical and diverse information as the significance of the building, engineering reports, conditions assessments, recommendations for future research, etc., to all be addressed in this second part of the HSR. The third and final part of the HSR was the appendix. This section was to include such items as a bibliography, findings of materials-related research, and any other valuable information concerning the structure but not necessarily connected to the proposed work.

The *Historic Structure Preservation Guide* was still intended to provide important maintenance information such as “instructions, schedules, and reference materials” to managers.\(^{19}\) While the *Preservation Guide* content did not change drastically, there was a great effort to systematize both the materials and the activities associated with maintenance in an effort to integrate the use of computers in the preparation of the HSR.\(^{20}\)

\(^{19}\) Ibid., 16.
\(^{20}\) The author acknowledges that Randall J. Biallas first made this point in his 1982 article summarizing the evolution of the HSR.
Perhaps some of the most significant language of NPS-28 came out of the *Technical Supplement* which was first published in draft form in 1984. “Levels of Investigation” were developed so as to gauge the appropriate intensity of the research to be conducted during the preparation of an HSR. Such a determination was made according to the “Significance [and] condition” of the structure and “the level of treatment” being proposed.\(^{21}\) The three levels of investigation were described as “exhaustive,” “thorough,” and “limited.”\(^{22}\) In the following chapter, this guideline will be examined more thoroughly as an acknowledgement of the need for flexibility and the constraints of time and resources felt by many sites when engaged in the process of completing an HSR.

### 2.4 *Chapter Conclusion*

This brief summary of the HSR’s history has been provided to establish a general understanding of the report’s evolution. It is now critical to examine the details of the revisions made, both to the format and to the content of the report, in order to see which of the goals have changed over time and which remain.


\(^{22}\) Ibid. These same guidelines still exist today in the current version of *NPS-28 Cultural Resource Management Guideline* (see Chapter 2, page 2).
CHAPTER 3: AN OVERVIEW OF THE HISTORIC STRUCTURE REPORT TASK FORCE AND AN ANALYSIS OF THEIR FINDINGS

3.1 PURPOSE OF THE ANALYSIS

In order to better understand the purpose of the historic structure report, a clear and thorough understanding of its goals, strengths and weaknesses must be presented. This chapter will explore the motivations behind both the conceptual and technical revisions that were made to the report over the years. Due to the significant impact it had, the work of the HSR Task Force, appointed by NPS in 1990, will be carefully reviewed.

3.2 SIGNIFICANCE OF THE CHANGES TO THE HSR

From the beginning, the “Data Sections” created within the HSR reflected an understanding of the need for an interdisciplinary approach to research. Categories such as “Historical Data,” “Architectural Data,” “Archaeological Data,” “Landscape Data,” etc., indicated that the report was to collect a variety of kinds of information.

From the language of the 1963 HSR preparation guidelines, it is clear that Part One was meant to offer a preliminary idea of the proposed work, as well as the character and condition of the building. “[Part One] scratches the surface of the available documentary
evidence and presents only the minimum amount necessary as the basis for administrative
decision.”

Once approved, Part Two was intended to be a “reasonable attempt to exhaust the
documentary evidence.” Described as a “supplement” to Part One, the instructions
stated that, “Nothing need be repeated from Part I except as specifically required by the
Part II contents.” Such exceptions existed however, with some sections of Part Two
calling for “condensed restatements” in order to summarize previous work. Though
efforts may have been made to avoid redundancy between the two sections of the report,
the research process itself was repetitive and cumbersome. Time and resources first had
to be spent in order to establish the minimum documentary evidence needed for
preliminary approval. Then, the archival material had to be revisited in order to
“exhaust” the available resources, as mentioned above.

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24 Ibid., 10.
25 Ibid.
26 Ibid.
The inefficiency of this process points to an ongoing weakness of the HSR; how to determine the appropriate “level of investigation.” Similar to today’s standards, in the past, the classification a structure’s significance was used to evaluate the intensity of the research needed in the preparation of the HSR. As stated in the 1963 *Historic Preservation Structures Handbook*:

> The extent of these reports should be commensurate with the architectural and/or historic significance of the individual structure. While it is important that complete and adequate information is obtained, care should be taken to prevent inclusion of material irrelevant to the classification.

Though an understandable approach, later guidelines from a 1981 revision acknowledged that it was not always easy to employ the suggested parameters:

> During the course of research for a historic structure report, it may be economical or desirable to gather data not specifically needed to support the treatment project. Such data on a structure, its occupants, its grounds, and/or its furnishings may be desired for interpretive or other purposes. When such is the case, the park should program for a historic resources study, historic grounds report, and/or historic furnishing report in conjunction with the HSR and should request funding from an appropriate source.

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27 This term is used in the current release of Cultural Resources Management Guideline (NPS-28), June 1998, Chapter 2, page 2.
30 Ibid., 15.
This quote points directly to the complexity of how to balance the common economic and
time constraints involved in the preparation of an HSR, with the possibility of uncovering
important research that may happen to lie outside of the defined scope of interest.

It also raises another critical component of the HSR’s evolution, which is the definition
of its intended use. As discussed before, Peterson’s original investigation was written
with the specific purpose of documenting a building before a treatment was carried out.
While this principle has remained central to the purpose of an HSR, other intents for the
report also developed over time. Understandably, these evolving uses complicated the
preparation process and caused confusion in defining the report’s ultimate purpose. It
was precisely this lack of clarity that led to the creation of a Task Force charged with
revisiting the fundamentals of the HSR and developing recommendations for its
improvement.
3.3 THE HSR TASK FORCE

In the beginning of 1990, the National Park Service created a Task Force to re-evaluate the “approach, content, and application” of the historic structure report.31 The review was motivated by the increasing costs associated with the preparation of the report, the concern that smaller scale maintenance projects were being overlooked by NPS, and the overall lack of clarity in the definition and use of the HSR. Two editions of the “Cultural Resources Management Bulletin,” published that same year by the National Park Service, were dedicated to the topic.32

3.3.1 Task Force Recommendations and Responses

The first series of publications released by the Task Force begins by summarizing their approach not “as a theoretical exercise but as a practical one.”33 By asking such questions as, “What is the intent behind [the] creation of an HSR?” and “Why has this existing guideline not been successful in limiting the scope [of the report]?” the Task

31 Randall J. Biallas, “Evolution of Historic Structure Reports at the U.S. National Park Service: An Update,” APT Bulletin 28, no. 1 (1997); 19-22, http://proxy.library.upenn.edu:8186/sici?sici=0848-8525%281997%2928%3A1%3C19%3AEOHSRA%3E2.0.CO%3B2-Z (accessed October 26, 2006). The task force was made up of NPS professionals from a variety of positions and locations so as to provide representation from many different contexts within the Park System. The team was evaluating NPS-28, Release No. 3, which was the guideline being used at the time.
Force notes the need to develop “a comprehensive impression of the interface between theory and practice in [the] preparation and use of HSRs.”\textsuperscript{34} This thesis demonstrates that more than fifteen years later such an understanding is still needed, as it is precisely this discrepancy that continues to complicate the report.

One of the most fundamental questions posed by the Task Force in their first set of articles is whether the HRS should be treated more as a “reference document for researchers” or a “decision guide for managers.”\textsuperscript{35} The many revisions to the report’s structure reflect the push and pull between limiting the research to data that is directly related to a proposed treatment, and recognizing that the history and significance of a structure must often be derived out of a context wider than just fabric. Throughout its evolution one of the most fundamental purposes of an HSR has been “to consider the merits of any proposed activity” such as “basic stabilization, rehabilitation, remodeling, restoration-reconstruction or demolition.”\textsuperscript{36} However, in the 1981 reissue of Charles E. Peterson’s report \textit{The Physical History of the Moore House, 1930-1934}, the renowned

\textsuperscript{34} Ibid.
\textsuperscript{35} Ibid.
NPS architect and preservationist Lee H. Nelson offers the following explanation of the report’s intent:

A Historic Structures Report, first defined by the Moore House Report in 1935, is usually a compendium of all known information about the historic structure, and includes documents such as letters, photographs, drawings, etc., together with the rest of the results of archaeological and architectural investigations, to better understand the building, its evolution and present condition.37

Nelson’s definition, suggestive of a more comprehensive investigation, is a good example of just one of the many competing understandings of the intended purpose of the HSR.

Throughout their first set of articles, the Task Force shows an incredible sensitivity towards the need for more focus, flexibility and practicality within the HSR preparation guidelines. Though the nine recommendations try to minimize redundancy and maximize the usefulness of the report, an overall analysis of the conflicting interpretations is still missing. Despite a clear attempt at a comprehensive approach, the Task Force still ultimately creates a scenario in which the structure of the report must be either for the purpose of reference or for management. In the following pages the nine

recommendations will be reviewed in an effort to fully demonstrate the complexity of the job undertaken by the Task Force.

3.3.2 Recommendation 1

*Define an HSR as a reference document that contains any [emphasis mine] of three types of information about a historic structure: (a) physical history and condition, (b) alternative ways of meeting management objectives, and (c) specifics of actual treatment.*

Perhaps most progressive about this suggestion is the acknowledgment that each individual case best determine what needs to be included in an HSR. In the explanation following this recommendation, the Task Force is careful to point out that whether a historic structure report covers all of a structure’s physical history or whether it only addresses one period, it is a decision that should be driven by the planning needs of management, not by a predetermined requirement. It is critical to note, however, that for as flexible and practical as this suggestion may be, it is once again returning to the interpretation of the HSR as a principally management document.

3.3.3 Recommendation 2

*Restrict the content of HSRs to information that bears directly on historic fabric and character.*

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39 Ibid.
This second recommendation exemplifies the need for focus, stating that the data included in an HSR should be limited only to information relevant to the built structure. In the issue of the *CRM Bulletin* that follows up the initial work of the Task Force, NPS Chief Historian Edwin C. Bearss comments on this very problem. He cites one example of an HSR hundreds of pages long, yet ultimately unhelpful when it yields only “half a dozen pages of data on the building’s structural evolution [that are] of use” to the planning process.⁴⁰

Just as Chief Historian Bearss offers his reaction to the initial work of the Task Force, the Building Conservation Branch (BCB) of the North Atlantic Cultural Resources Center also comments on the recommendations. As suggested by the title of their article, “HSRs: Documentation First,” one of the group’s principal concerns is the critical task of documentation. “It is the BCB’s conviction that the primary – even exclusive – purpose of a HSR is to *document* a structure.”⁴¹ They argue that resources such as measured drawings, photographs, and oral histories can all contribute to the creation of an HSR that

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“provides managers with the information they need to respond to virtually any
development issue.”\textsuperscript{42} They go on to assert that:

The BCB has found that information uncovered during the preparation of
a HSR can often broaden the understanding of the resource and its
significance to its park’s mission.\textsuperscript{43}

How Bearss and the BCB both respond to the recommendations of the Task Force
demonstrates that despite calling it by the same name, they are clearly referring to two
different reports with two different processes for achieving the protection of a historic
structure.

In calling for content restricted to “historic fabric and character,” the Task Force suggests
that it is not the interdisciplinary nature of the report that needs to change, but rather the
inclusion “of any research that does not contribute to an understanding of the condition
and integrity of a historic structure.”\textsuperscript{44} Throughout its evolution, one of the most
consistent elements of the HSR has been the importance placed on cross-disciplinary
cooperation. Differences in how an archaeologist, architect, architectural historian, and
historic preservationist define contributing evidence, therefore seems to be the precise

\textsuperscript{42} Ibid.
\textsuperscript{43} Ibid.
\textsuperscript{44} Garret, “A New Conceptual Model,” 2.
reason that all are involved in the investigation process. The need to bring focus to the structure of the HSR is undeniable, but how to do it depends on a clearly stated and agreed upon intent for the preparation of the report. With serious discrepancies in interpretation such as those cited above, it is difficult to imagine how research goals can be effectively communicated to an interdisciplinary team in order for the process to stay focused.

3.3.4 Recommendation 3

*Limit the scope of an HSR according to the availability of information in other convenient sources.*

Practicality drives the third recommendation. The Task Force recognizes that, perhaps unlike the past, many of today’s parks already have vast quantities of information about their resources in the form of “old HSRs…research notes, measured drawings, photographs, condition assessments, National Register nominations,” as well as other documents, that could be easily and effectively used in the preparation of an HSR. Referring to this collection of diverse data as a “reference file,” this point nicely acknowledges the need to update the preparation process to more accurately reflect the wide variety of resources to which many parks already have access.

This recommendation did not pass without comment by the Building Conservation Branch:

Our experience has shown that writers of HSRs must investigate primary sources of information in order to verify the accuracy and completeness of the information in those other “convenient sources.” Even National Register nominations have proven to be erroneous. The BCB also believes that one of the main values of a HSR is the way in which it pulls together in a coherent and related manner information from many sources.46

The issues the BCB presents in response to the idea of using “convenient sources” are important ones, yet they go beyond the scope of the preparation of an HSR. The Task Force recommends that, when possible, documentation from a park’s own collection be consulted and implemented. If there are errors in even the most basic of documentation used in the maintenance and management of NPS historic structures, there may be problems much more serious than how to prepare an effective historic structure report. It is difficult to argue against confirming the “accuracy and completeness” of sources during any type of investigation, however if the information collected by the parks over the years is so unreliable, it is a systematic problem that must be dealt with immediately. As for the BCB’s belief that the strength of the HSR lies in its diverse body of data coming from many different sources, the Task Force makes no indication that such an

approach need change. The examples cited by the Task Force during the explanation of the recommendation, as well as by the BCB during their response, both offer a wide variety of sources that can be consulted throughout the preparation of an HSR.

3.3.5 Recommendations 4 and 5

*Require that an HSR be prepared whenever (a) existing information about the physical history and condition of the resource does not provide an adequate basis upon which to address anticipated management issues and (b) alternative courses of action for impending development could have a significant adverse effect on a historic structure.*

*Require that an HSR be prepared whenever actions have been taken that directly effect the character or fabric of a structure.*

The fourth and fifth suggestions seem to be included almost as a way to reiterate what is generally understood to be the reason for initiating an HSR. Although Charles Peterson prepared the Moore House after a restoration project had already been completed, the National Park Service quickly learned from their first experience with what would become the historic structure report. NPS realized the importance of documenting a structure before performing any type of treatment so that important data concerning the building’s evolution would always be available. The fourth recommendation can be

interpreted as an update to the same notion, only with the recognition that, despite already
having what may be an extensive amount of documentation, some historic sites may need
to conduct additional research in order to evaluate the most appropriate course of action
to take. Citing the ICOMOS Venice Charter’s call for documentation of “all works of
preservation, restoration or excavation,” the Task Force explains that the fifth
recommendation serves to place a “greater emphasis” on the already existing guideline of
recording all treatments done to a building.

3.3.6 Recommendation 6

Take design of development alternatives no further than schematics.

The Task Force states that one of the reasons a historic structure report is prepared is to
“document the process by which decisions are made.” By suggesting that the treatment
alternatives addressed in an HSR only be carried out to schematics, the idea is to
“underscore the function of [the report] as a reference document and help strengthen the
importance of decisionmaking at the conceptual level.” Perhaps here the Task Force
begins to apply a more flexible approach to the HSR as a management document,

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51 Ibid.
52 Ibid.
suggesting that the report be used as a way to “maximize consideration of alternatives,” rather than as a selection of detailed options. This recommendation takes into consideration the concerns of time and resources that are commonly associated with the preparation of an HSR by limiting the amount of design detail necessary.

3.3.7 Recommendation 7

*Limit the research effort for an HSR according to (a) the specific development issues that can be anticipated for a given resource, and (b) the significance of the resource.* 53

While no new concept is introduced in this recommendation, there is some consideration given to how to systematically impose limits on the “adequate level of effort for preparation” of an HSR. 54 The significance of a structure, as well as a proposed treatment’s potential impact to the building fabric, have long been accepted as appropriate criteria for determining the level of research required. Though not mentioned in their recommendation, the Task Force mentions the idea of an “information matrix” as a way to standardize the types of data that should be consulted in the preparation of an HSR, depending of the particular management issue being addressed.

53 Ibid.
54 Ibid.

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While the matrix is not explained in any further detail, it does not prevent the Building Conservation Branch from once again voicing their disapproval. Their criticism of the “information matrix” is based on the concern that, in attempting to place limits, the guidelines for the preparation of an HSR will become too rigid. Given the wide array of uses the report has among the managers and staff of historic sites, it is an understandable critique.

3.3.8 Recommendations 8 and 9

Write for the primary audience; maximize use of information prepared by other reliable sources; minimize reformatting available information.

Restrict the number of HSRs copied and broadly distributed.\(^{55}\)

The final two recommendations can be considered simultaneously, as both address the issue of audience and access. Again, the Task Force does its best to include practical measures that can easily help to cut down on redundancy throughout the HSR preparation process. The idea of using already available data is repeated, underscoring the importance of the consideration. The primary audience mentioned is defined as

\(^{55}\) Ibid., 4-5.
“managers and staff professionals,” and the Task Force suggests that sections of the HSR be prepared with the needs of both in mind.  

Minimizing the reformatting of already available information, as well as the last recommendation about limiting the number of HSRs copied and distributed, are points that help to bring the current discussion about the work of the Task Force towards the next phase of this investigation: The use of new technologies in the evolution of the historic structure report. Much more will be said about these two recommendations in future chapters, however it is worth noting the BCB’s response here. The group mentions that, in addition to other institutions, copies of an HSR often times need to be turned in to the universities with whom they work. While perhaps not their intention, the BCB provides an opportunity to consider the HSR as something more than just a government report, and to recognize it for another important role it plays – that of learning tool.  

When thinking of the vast amounts of time and resources spent in the preparation of an HSR, it seems counter-productive to make access to it so difficult. Certainly there are

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56 Ibid. In this recommendation, staff professionals are identified as historical architects, architectural conservators, curators, historians, preservation specialists, landscape architects, and archaeologist.

exceptions, for example burial grounds or archaeological sites that may need protection from the general public. However, in many cases, the compilation of such a wide array of information about our country’s important historic sites seems too valuable of a resource to limit to ten copies. Though the suggestion is made out of an understandable concern about spending, the next chapters will explore ways that a web-driven alternative may help to control costs.

3.4 Chapter Conclusion

One of the most critical concepts that surfaces during the first round of Task Force recommendations is that of a “reference file.” The idea is introduced as a way to organize the “massive amounts of fragmented information already in existence about historic structures.”58 Although recognizing the need to streamline data, the suggestion still implies that the historic structure report is inappropriately fulfilling this role, however contrary to Nelson’s definition noted earlier. The confusion surrounding the purpose of the HSR has been discussed at length in this chapter. For as carefully as the Task Force attempted its work, some of their recommendations seem to have been developed with the same problematic approach as many of the previous revisions.

Without a clearly stated intent, changes to the report will remain superficial and the weaknesses will persist.

The next chapter will present a final review of the current guidelines for the historic structure report, now a part of *Director’s Order #28: Cultural Resource Management*. This description and analysis is essential to arrive at the Park Service’s own incorporation of technology into the evolution of the HSR, and the ways in which its attempts succeeded and failed. It will set the stage for the idea of a Preservation Digital Archive, and will begin the discussion of how new technologies can be used to minimize the current discrepancies surrounding the report.
CHAPTER 4:
DIRECTOR’S ORDER #28: CULTURAL RESOURCE MANAGEMENT
AND THE CURRENT STATE OF THE HSR

4.1 INTRODUCTION

The work of the HSR Task Force resulted in a significant reconsideration of the use and format of the historic structure report, culminating in the 1997 publication of Release No. 5 of NPS-28. The most recent available version of the policy, now called Director’s Order #28: Cultural Resource Management, describes the HSR as “the primary guide to treatment and use of a historic structure…” This chapter will outline the current guidelines for the preparation of the HSR, and will clarify where the Task Force’s recommendations were implemented, and where they were not.

59 On June 11, 1998, the official name of the “NPS-28: Cultural Resource Management Guideline” was updated to “Director’s Order #28: Cultural Resource Management.” Despite this change, the policy still appears widely under the former title.
4.2 Influence of the HSR Task Force on the Current Guideline

D.O. #28 breaks the historic structure report into four sections: The Management Summary, Part 1: Developmental History, Part 2: Treatment and Use, and Part 3: Record of Treatment. As the name suggests, the Management Summary is a brief synopsis of the report’s findings, including administrative information and recommendations concerning both treatments for and uses of the structure.

Part 1: Developmental History is described as a “scholarly report documenting the evolution of a historic structure, its current condition, and the causes of its deterioration.” It is in this section that the term “historic resource study” is mentioned as an alternative report with the purpose of addressing any “major historical investigation of contextual themes or background information,” that may be relevant but not critical to the structure itself. The idea of this study addresses the second recommendation made by the Task Force, which suggested limiting “the content of the HSR to information that bears directly on historic fabric and character.” Another goal of Part 1 is to “establish a recommended period or periods of significance [for a site] if this has not been done in the

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62 Ibid.
63 Ibid.
64 Ibid.
65 Ibid.
National Register nomination or historic resource study (HRS).\textsuperscript{66} The suggestion to seek out already available material indicates that attention was paid to the Task Force’s third and eighth recommendations, which encouraged the use of other “convenient” and “reliable” sources in the preparation of an HSR.\textsuperscript{67}

In the case of \textit{Part 2: Treatment and Use}, the influence of the Task Force is once again seen in the decision to limit design alternatives to schematics.\textsuperscript{68} Furthermore, the importance of documenting “the process by which decisions are made,” as stated in Recommendation 6, is reflected in the suggested content of Part 2:

Alternatives are presented in both text and graphic form. Analysis addresses the adequacy of each solution in terms of impact on historic materials, effect on historic character, compliance with NPS policy, and other management objectives. The section concludes with elaboration on the recommended course of action and specific recommendations for preservation treatments.\textsuperscript{69}

Such wording clearly indicates that the historic structure report is intended to provide future readers with an understanding of the options that were available, and the choices made in determining a treatment and/or use. The Task Force’s recommendation to place

\textsuperscript{66} National Park Service, \textit{NPS-28}, Chapter 8, 101.
\textsuperscript{67} Garret, “A New Conceptual Model,” 3-5.
\textsuperscript{68} See Recommendation 6 in Garret, “A New Conceptual Model,” 7.
\textsuperscript{69} National Park Service, \textit{NPS-28}, Chapter 8, 101.
more emphasis on “the importance of decisionmaking at the conceptual level” has certainly been taken into consideration.\(^{70}\)

*Part 3: Record of Treatment* also indicates the impact that the Task Force’s findings had on the revision of the HSR guidelines. As previously mentioned in the description of Recommendation 5, the ICOMOS Venice Charter declares documentation a critical part of any intervention. Article 16 of the charter states:

> In all works of preservation, restoration or excavation, there should always be precise documentation in the form of analytical and critical reports, illustrated with drawings and photographs. Every stage of the work of clearing, consolidation, rearrangement and integration, as well as technical and formal features identified during the course of the work, should be included.\(^{71}\)

In their first publication, the Task Force explained that a “greater emphasis” needed to be placed on the documentation of treatments in order to give practitioners the opportunity to “adequately assess the long term effects of...preservation work,” and so that the “blurring of “historic fabric and replacement material” could be avoided.\(^{72}\)

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Within Part 3, it is suggested that summaries of “(a) the intent of the work, (b) the way in which the work was approached and accomplished, (c) the time required to do the work, and (d) the cost of the work,” be included as part of the “Record of Treatment.”73 Additionally, “Technical Data” such as “field reports, material data sheets, field notes, correspondence, accounting spread sheets, and contract summaries” are also named as examples of relevant information.74 Overall, this section of the report seems to successfully balance the role of the HSR as both a record of documentation and as a management tool. As will be explained next, this was a goal of the Task Force that was not always fulfilled.

4.3 Lessons Learned from the HSR Task Force

Of equal importance to the changes made in preparation for Release No. 4 of NPS-28, was the decision not to implement all of the HSR Task Force recommendations. Billy G. Garrett, who served as Task Force Chair, published an article in 1996 entitled, “Revision of the National Park Service Guideline for Historic Structure Reports.”75 In it, he briefly recaps the evolution of the report, including his own team’s review and findings in 1990.

74 Ibid,
According to Garrett, the conclusion to “place documentation on par with resource management,” as well as the move to give “greater recognition and legitimacy to the function of published reports,” were the two most critical areas where NPS differed from the suggestions of the Task Force.76 As mentioned in the previous chapter, despite a careful and thoughtful analysis, it appears that some of the recommendations made (or not made) were still too constricted by a binary understanding of the HSR’s principal purpose. By supplementing the Task Force findings with some of the feedback received, NPS demonstrated an openness to a more complex and comprehensive definition of the historic structure report, one willing to put “documentation on equal footing with resource management.”77

4.4 CHAPTER CONCLUSION

The guideline as it stands today is, in many ways, the result of the work of the HSR Task Force. By considering the historic structure report on both the conceptual and practical levels, a strong effort was made to balance out the many uses of the report. As mentioned before, the current HSR preparation guidelines are found within a larger

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76 Ibid., 113-114.
77 Ibid., 113.
policy framework, that of D.O. #28 Cultural Resource Management. The next chapter will look at how emerging technology within the National Park Service sometimes plays a part in the process of compiling a historic structure report. In addition, a variety of case studies will review individual attempts to introduce digital technology to the HSR and information management.
CHAPTER 5: PREVIOUS USES OF TECHNOLOGY

5.1 Introduction

The use of technology is always being tested within the field of historic preservation. As the tools for recording and documentation evolve, so do the techniques used by conservators, architectural historians, and other practitioners. For more than twenty years, important professional journals such as *APT Bulletin* and *CRM Bulletin* have consistently covered the advances being made in the use of technology in preservation.\(^\text{78}\)

Recently, major international organizations have put information technology’s role in cultural heritage at the forefront of their conferences.\(^\text{79}\)

This chapter will focus on specific examples of how both the National Park Service and individuals in the field have worked with tools such as databases and the internet during

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\(^{79}\) Three such examples include (1) “The Documentation Dilemma: Managing Conservation Data in the 21st Century,” held in 2005 during the American Institute for Conservation annual meeting, (2) “The Evolution of Information Technology in Cultural Heritage,” and “Where Hi-Tech Touches the Past: Risks and Challenges for the 21st Century,” a joint conference sponsored by EPOCH (European Research Network of Excellence in Open Cultural Heritage) and ICOMOS CIPA (The International Committee for Architectural Photogrammetry) in Cyprus between October 30-Novemeber 4, 2006 and (3) the upcoming “Heritage Impact 2007,” a conference focusing on the use and impact of information and communication technology within cultural heritage, sponsored by EPOCH in Brighton, UK in June of 2007.
the process of documentation and recording. The case studies will show how the proper use of technology can increase efficiency, facilitate dissemination, and even enhance a researcher’s ability to analyze material. Though the case studies outside of the National Park Service do not deal specifically with the preparation of historic structure reports, they do involve many of the same activities undertaken by NPS in the compilation of an HSR, and are therefore relevant examples of the possibilities to integrate technology.

5.2 THE INVENTORY AND CONDITION ASSESSMENT PROGRAM (ICAP) AND THE HISTORIC STRUCTURE ASSESSMENT REPORT (HSAR)

A year before the Task Force was organized a new component was added to the NPS Inventory and Condition Assessment Program (ICAP). The Historic Structure Assessment Report (HSAR) was created in 1989 as part of the Park’s Maintenance Management (MM) Program. First introduced in “Chapter 4: Stewardship,” of NPS-28, the following is how the program is described:

The NPS Maintenance Management (MM) program includes the planning, organizing, directing and controlling of maintenance activities. The computerized implementation program, Maintenance Management System

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80 The following is the definition given for ICAP in NPS-28, “The Inventory and Condition Assessment Program (ICAP) module of the Service’s MM program provides those managing maintenance activities, including preservation maintenance, with information on a park’s assets and their condition,” National Park Service, NPS-28, Chapter 4, 39.

81 Billy G. Garrett, “Historic Structure Reports: A Redefinition,”
(MMS), also provides information to higher management levels, permitting accomplishments to be identified and needs to be articulated on a Service-wide basis.82

Clearly, the activities surrounding the Maintenance Management program overlap the work undertaken during the preparation of a historic structure report.

Indeed, references are made to ICAP and the historic structure assessment report in the HSR guidelines. In Part 1: Developmental History, it states that when the Inventory and Condition Assessment Program (ICAP) is consulted to “describe the nature and condition of the features [of the structure],” an HSAR should be included as an appendix to the HSR.83 ICAP is a database system used to record NPS assets such as the features and conditions of a cultural landscape or historic structure. An HSAR is the report generated by the ICAP system reflecting the state of the asset in question. Centralizing such critical information minimizes the unnecessary duplication of work, and allows the same data to be used in a variety of different circumstances. The use of ICAP and the HSAR seems one appropriate way to incorporate the “convenient and reliable” sources recommended by the Task Force in 1990.

82 National Park Service, NPS-28, Chapter 4, 39.
83 Ibid., 100-101.
5.3 CASE STUDIES BEYOND NPS

The following is a review of some of the earliest projects and initiatives that experimented with the integration of technology into historic preservation information management. Most originated in the early 1990s when the concepts surrounding the World Wide Web and the Internet were still new to the general population and had to be carefully explained. These case studies serve as stark reminders of how dependent most current heritage projects are on various forms of digital media, and clearly demonstrate how quickly technology continues to evolve.

5.3.1 The Historical Architectural Documentation System (HADS)

In a 1996 issue of the *APT Bulletin*, an article was published entitled, “A Multimedia System for Organizing Architectural Documentation of Historic Buildings.”84 It described an effort made by researchers in Texas to develop what they referred to as the *Historical Architectural Documentation System* (HADS). The initiative was defined as a “multimedia system that provides a framework for organizing, analyzing, and retrieving

Preservation, conservation, rehabilitation, and adaptive reuse of historic buildings call for the organization and analysis of considerable information, such as historic and contemporary photographs, historic and measured drawings, and written documents collected from a variety of sources: archives, libraries, personal collections, and field trips. Studies suggest that information will be utilized more effectively when it resides on one platform. Such a platform should be able to integrate various forms of information and to provide a flexible and user-friendly interface. The goal of this study was to develop a multi-media database structure to provide a comprehensive yet convenient framework for organizing and analyzing information pertinent to historic buildings.

The Wesley Brethren Church located in Wesley, Texas was the example used to describe the process by which the data collected was converted into the HADS system.

At a conceptual level, HADS tried to replicate “conventional procedures in architectural presentations” within an internet-driven multimedia platform. These procedures were described as typically going from project generalities to building specifics, so for example from site plans to floor plans. The system used the idea of “classes” to

85 Ibid., 18.
86 Ibid.
87 Ibid., 19.
88 This example is being paraphrased from the original article. See page 19 of the article for the original sentence.
describe a group of “objects” that may possess similar features, which is how the HADS system began to break down the information collected in the study of Texan churches.

An example of the “interconnected information classes” established for use in the investigation, were the building type, location, and historical background.89

The need to separate information into categories, particularly in a project that produces a large volume of data, is a difficult idea to argue against. However it was the HADS developers’ use of a website’s hyperlink that makes this a worthwhile early example to review. Each of the objects being studied (the Texan churches) belonged to all of the “information classes” listed above; each building had a type, a location, and a historical background. What happened then, when the same archival document or historic photograph was relevant to more than one “information class”? The answer had long been the use of a finding aid or card catalog, a list that could create several research paths to the same resource. The HADS system borrowed a similar concept, but employed what in 1996 was still a relatively new tool; Hypertext Markup Language (HTML).

89 Ibid.
Part of the power of using HTML as a way to organize and manage information generated during a project is its ability to handle various formats of data. As suggested by the article’s title (“A Multimedia System for Organizing Architectural Documentation…”) the HADS developers were interested in the possibility of integrating text documents, images, audio files, and even video into the new system. Their idea was to communicate architectural history more effectively by creating a single platform capable of handling a diverse range of resources:

- Images can be further supplemented with written text and/or audio narratives. Furthermore, animation and music can accentuate the historical background of the building.⁹⁰

HADS was also envisioning an information management system that gave the users the chance to create their own connections across categories, information-classes, and even time. After detailing the many types of sources consulted by the researchers throughout the investigation, the following was used to summarize the HADS approach. The unique capability of HTML to allow a user to arrive at the same resource from any number of paths was clearly being underscored.

The architectural documentation [section] maintains links among and across objects. These links provide flexibility and enable the viewer to access and retrieve the information from different locations in the

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⁹⁰ Ibid., 20.
program. Thus, the interconnections of the specific objects allow for the comparison of old and contemporary phases, as well as the study of drawings and photographs of a given feature.91

For contemporary readers, this somewhat complicated explanation of a simple “hotlink” on a website may seem like unnecessary academic jargon. However, in its time, the HADS project was making a visionary proposal that this new concept of HTML be used to facilitate connections between the diverse data generated during investigations. The developers saw the potential for HTML to create a multimedia and interdisciplinary approach to the organization of information. Simultaneously, they were transforming themselves from information users into information providers. As trained cultural heritage professionals, the HADS developers were able to consider their own specific needs and design their information management system accordingly. Instead of being told their options by a programmer or a technical consultant, this team took the lead in learning the tools themselves.

5.3.2 The Louisiana Heritage InfoNet (LHIN) and the Whitney Plantation

In 1992, the Office of Community Preservation (OCP) at Louisiana State University (LSU) launched the Louisiana Heritage InfoNet (LHIN).92 The purpose of the initiative

91 Ibid., 20.
was to support “the development of new computer-based information management…strategies to advance conservation efforts.”93 One of the projects undertaken by LHIN was an attempt to merge the work of the Historic American Buildings Survey (HABS) with web technology.

In a 1997 article published in *APT Bulletin*, the need for the project was justified based on the following argument:

> [T]he traditional approach to managing HABS documents makes access to high-quality line art, photographs, and field data extremely difficult, if not impossible. In spite of substantial investments of time and money in HABS projects over more than sixty years, the program, while academically significant to architectural historians, has not successfully applied its information resources to the benefit of managers, owners, and developers of historic properties. As a consequence, HABS efforts are not effectively advancing preservation decision processes.94

This limited use of HABS resources is reminiscent of one of the problems with the HSR. As clearly stated above, not enough of an attempt was made to connect the HABS

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94 Ibid., 56.
documentation to the management of the site being surveyed. In the case of the HSR, the narrow understanding of the report as an internal management tool, rather than as an additional, wider educational resource, creates the same scenario in which “substantial investments of time and money” are not sufficiently tapped into. The OCP saw that developments in technology offered an opportunity to bridge the gap between the collection of information and its dissemination.

Similar to the previous example of HADS, the 1997 article about LHIN’s work was published at a time when an explicit description of the “World Wide Web” was still necessary. Today, these clarifications are excellent reminders of why the internet has the potential to be such a powerful tool in the field of cultural heritage. In the LHIN article, HTML is defined as a “document-formatting protocol that supports linear and non-linear methods of organizing and displaying information.” The ability to work with “multimedia-based systems that integrate text, graphic images, animation, audio, and video,” echo the sentiments of the HADS developers in their reasons for attempting a web-driven format. The opportunity to cross boundaries, whether cultural, geographic, or disciplinary, was cited as another advantage of the platform. Perhaps one of the most

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95 Ibid.
96 Ibid.
progressive concepts for the time was the notion that HTML “follows the assumption that a user’s interpretation of data is often more meaningful than the author’s,” an idea captured previously by HADS’ focus on “flexibility.”

The article focused on the prototype created for the Whitney Plantation, located in St. John the Baptist County in southeastern Louisiana. The material selected for inclusion came from Louisiana HABS documents, as well as from area archives, oral histories, and a historic structure report that had been prepared about the site. It is interesting to note that in addition to containing “extensive information about the history, assessment of physical damage, and repair recommendations,” the HSR also “provided the hierarchical model for the prototype.” This “Document Structure” is explained as intending to “mimic the structure of the HSR, with individual components classified according to media type.” But as the authors note, the power of imposing this model on an HTML platform was the following:

The authors...created a layer of network links that formed associations between nodes without regard to hierarchical structure. For instance, when a node on the Sugar House required elaboration, a link was created

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97 Ibid.
98 Ibid., 58.
99 Ibid.
100 In this quote the word “node” is used to refer to the webpages or external documents being linked.
to an essay on the regional sugarcane economy. Since each node has reusable properties, associations can be established by simultaneously following deductive (general to specific) and inductive reasoning (specific to general) reasoning, thereby permitting a user to begin at any node in the document and develop an understanding of details, as well as a sense of the whole.¹⁰¹

By creating meaningful links between both the originally selected material (HABS surveys, area archives, etc.,) as well as to external, perhaps more broadly related resources (the essay mentioned above) the authors indicate their understanding of HTML and the internet as a tool for information management, integration, and dissemination. The prototype seems to achieve several goals set out by the Office of Community Preservation, including increased access to HABS and other materials, as well as the opportunity for “new insight into heritage values” thanks to a new research approach.¹⁰²

The article carefully details the prototype’s “user interface,” explaining that “an assortment of navigational aids (menus, buttons, keywords, icons, etc.)…facilitate access to all facets of the document.”¹⁰³ While today most of these features and how to use them are commonplace to even the most novice of web surfers, it is important to recall the relative newness of the internet at the time, particularly as a tool within academia. A

¹⁰¹ Ibid.
¹⁰² Ibid., 56.
¹⁰³ Ibid., 60.
list of possible entries into the available data such as “Drawings,” “History,” “Images,” etc., was put in the form of a menu on the introduction page (Fig. 5).

Figure 5. Homepage of HADS’ Whitney Plantation Prototype. The navigation bar to the left allows users to see the kinds of information available on the site. Source: habs.lsu.edu/whitney/test/index.htm.
It is clear from the way the menu is structured around resource categories rather than the unique features of the Whitney Plantation, that the LHIN developers were creating a methodology for research and information management, not just a website.

5.3.3 The Valley of the Shadow

*The Valley of the Shadow: Two Communities in the American Civil War*, coordinated by the Virginia Center for Digital History at the University of Virginia, is perhaps the strongest and most comprehensive example of all the case studies. The principal researcher involved in establishing the site had initially intended to author a book. His interest was in comparing the experiences of two communities – one Southern, one Northern – before, during and after the United States Civil War. Thanks to the involvement of the University of Virginia’s Institute for Advanced Technology in the Humanities (IATH), the researchers approached IBM with the idea of using computers to bring the archives to the students for easier access to historic documentation. When the company agreed to offer their support in the form of a few computers, a server, and training, the decision to go digital was made.  

One of the most significant differences between the Valley of the Shadow and the other case studies in this chapter is its apparent ability to evolve over time. The idea for the initial investigation was first proposed back in 1991, and by 1993 the work to digitize research material was underway. Today, the site appears contemporary because of its simple design and, more importantly, its sophisticated delivery of primary resources such as historic maps and images, transcriptions of letters and diaries, and historic census data, just to name a few. In addition to research material, the current site actually traces the history of the initiative itself in a section called, “The Story Behind the Valley Project.” An excellent description is provided of how the available technologies were used to continuously enhance the site over time.

As the original proposal suggested, the research material available on the site is divided according to chronological moments; “The Eve of War,” “The War Years,” and “The Aftermath.” Then, within each time period, a hyperlink is used to take the user to the appropriate resource. For example, materials such as “Letters and Diaries” and

105 Ibid.
107 Though perhaps not technically a historic preservation site, this project has been included because many of the same resources are made available in ways that would equally facilitate cultural heritage research.
“Newspapers” are available for research within all three of the time frames, but “Battle Maps” is only offered as a choice within the “War Years” (Fig. 6).

**Figure 6.** Valley of the Shadow navigation options are divided first chronologically and then by research material. Source: valley.vcdh.virginia.edu.

Once a research category within a time period has been selected, the user is taken to the appropriate introduction page where s/he narrows down what specific aspect of the data they wish to access.
The site is filled with an enormous amount of data of various types; image files, tabular data, text documents, animated maps, etc. Due to the large volume of diverse information, the site could have easily turned out to be more confusing or overwhelming than helpful. However, the ease with which the user navigates the site and retrieves data indicates the developers’ understanding of how to best exploit a web-based platform. To begin with, the Valley of the Shadow is highly queriable. Depending on the section of the digital archive, different tools are provided to facilitate a search. For example, within “The War Years” time period, the “Soldiers’ Records” hyperlink leads to a page where the user must first indicate which community s/he wants to investigate (either the Northern or Southern county). From there, a series of text fields and drop down menus allow the user to search the records by contributing as much or as little information as s/he chooses (Fig. 7).

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Another example from “The Aftermath” time period is the ability to either search or browse various kinds of records from the Freedmen’s Bureau. Selecting one of the search options leads the user to similar pages of drop down menus and text fields as

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described above. However should a user prefer to browse the available material, s/he must first choose between whether to do so by date or by topic. Either way, the next page presents a list of clearly marked hyperlinks, immediately followed by summaries describing what type of information the user can find at the next page. By providing both a browse and a search option, the Valley of the Shadow is well equipped to serve a wide audience, whether it be a history buff with general curiosity or a graduate student in search of a specific fact or figure. The same information can be either discovered or located, depending on the approach of the user.

An additional strength of this site is its subtle precision with data presentation. One example is how images load quickly on to a page as small thumbnails, but are hyperlinked to higher resolution versions should a user want more detail. Remembering that the original proposal was to compare the experiences of two nearby communities before, during and after the Civil War, maps of the two counties’ can be looked at separately or side by side on the screen. Yet another example is the “Civil War Image Database,” which allows users to conduct queries based on location, subject, name or
Each new search combination can lead to new connections between the resulting data.

The benefit of the site’s data presentation goes beyond just images, as is seen in the treatment of information such as census and tax records transcribed from local archives. Once a search is performed, the results are called up on to the screen in the form of a table. This allows a user to simply “copy” and “paste” the data directly into a program such as Microsoft Excel or Access for more advanced analysis. At the top of each page yielding search results there are clear and specific citation instructions, indicating the developers’ anticipation that the site would be used in precisely such a way (Fig. 8).

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As was mentioned at the beginning of this case study, the site provides information concerning how the initiative began and who has been involved. It is among this “Project Staff and Background” page that two keys to the project’s success are found. First, from the descriptions of the activities that went (and continue) to go into building and maintaining the site, it is clear that as serious a commitment was made to technology as was to history. Despite a staff of history professors and students, each participant’s contribution to the project involved more than just average computer skills. Over the
years, people transcribed texts, scanned images, built databases, developed GIS maps, created animations, wrote code and more all so that the information could be converted into a web-driven format. The impressive list of activities is almost daunting at first, yet it is helpful to remember that the professors and students of history who created the site were able to do so because they had the proper training and support. This point is the first key to the project’s success: The Valley developed out of an interdisciplinary relationship among technology professionals and humanities scholars, providing the training necessary to allow the information users the chance to become the information providers. The skills required to build a website are not traditionally taught in American History programs, however this project is a good example of what can happen when a group of non-experts learns how to use these tools.

The second key to the Valley’s success is that the decision to utilize digital media was considered at the beginning of the project rather than at the end. By investing time and resources in training, it is clear that the project organizers were thinking ahead about the role that technology would play in their work. For understandable reasons such as time and money constraints, many managers are unwilling to talk about information management at the planning stages of a project. However each time that a job begins without some kind of information management system in place, it is simply tacking the cost on to the end. Data is meaningless if it is not organized and accessible, which is in
some ways the notion that prompted the *Valley* initiative. This site is successful because it accepts that today the effective use of digital media requires full integration from the very beginning of the planning process.

*The Valley of the Shadow* is an excellent example of why serious thought should be given to integrating more web-driven technologies into the field of historic preservation. Keeping large volumes of diverse data from many time periods organized is a daily activity for many who work in cultural heritage. Though it is likely that computers already play a role in this process, mainstream technology is now available that allows professionals to manage, analyze and disseminate information all on the same platform. This site is a reminder of what happens when a tool is used to its fullest potential rather than maintained at its most easily grasped form.

### 5.3.4 The RecorDIM Initiative

The *Recording, Documentation, and Information Management Initiative* (RecorDIM) is a project that developed out of four years of workshops organized by the Committee for Documentation of Cultural Heritage (CIPA Heritage Documentation). This committee was jointly sponsored by ICOMOS (International Council on Monuments and Sites) and ISPRS (International Society of Photogrammetry and Remote Sensing) from 1995 until
The result of these years of work was the RecorDIM Initiative, founded in 2002 by ICOMOS, CIPA Heritage Documentation, and the Getty Conservation Institute (GCI). Thanks in part to the highly recognized names involved, the RecorDIM Initiative has been able to develop an incredibly detailed, often times sophisticated approach to the many facets of documentation and recording. The project began due to the “critical gaps between those who provide recording, documentation, and information management tools and professionals in cultural heritage management who use the tools,” a reality uncovered over the course of the initial workshops in the 1990s. As a result, participants in an early RecorDIM meeting held in March 2002 laid out the following goals to be addressed through the work of the initiative:

1. To improve perception and communication in recording, documentation and information management;
2. To integrate communication in recording, documentation and information management activities into the conservation process;
3. To increase resources for documentation;
4. To define, develop and promoting documentation tools;
5. To disseminate information

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113 Ibid.
6. To make available specific RecorDIM Training/Learning Programs.114

As is apparent from their list above, the founding members of RecorDIM understood the critical need to address information management and dissemination as it uniquely relates to cultural heritage. The participation of such leading international organizations as ICOMOS and the GCI in the establishment of this ongoing investigation should make all professionals in the field recognize the need to consider these issues.

It is unfortunate timing for this thesis investigation that RecorDIM’s Principles and Guidelines for the Recording, Documentation and Information Management of Heritage Places, has not yet been released. To be published by the GCI sometime in 2007, the book promises to detail the initiative’s suggestions for how to implement the RecorDIM approach to information management. Though their principles are clear (see above list), specific recommendations concerning how these guidelines are to be applied is not available within the existing literature.

In a 2005 interview published in the GCI Newsletter, Werner Schmid, co-editor of the upcoming book, spoke generally about documentation and information management issues within cultural heritage. The article, entitled “People and Technology: A Discussion about Heritage Documentation,” may offer some insight into what readers will encounter in the RecorDIM guidelines. To begin with, Schmid defines documentation as

a multidisciplinary activity, which consists of research, recording, evaluating, interpreting, correlating, archiving, managing, and disseminating information. It involves written reports, surveys, photographic records and the establishment of digital databases that try to make all relevant information accessible in one place.

He also mentions the use of “project-based Internet or Intranet sites” as a “better way to share results.” Cleary from his description, Schmid understands the use of technology for managing the diverse types of information generated during a conservation project. However he also acknowledges the complicated relationship between what he describes

116 Ibid., 10.
117 Ibid., 14.
as “a segment of rather computer-illiterate conservation professionals” and the “information technology specialists [who are] trying to sell their products.”

Schmid’s point that cultural heritage professionals are increasingly faced with the need for a more sophisticated understanding of technology is a critical one. However RecorDIM’s approach to “bridging the gap” may prove to be more complicated than necessary. A review of the “Information Warehouse” page on the RecorDIM website shows a list of various resources such as allied organizations, current research projects, emerging policy and guidelines, etc. In the case of software development, many links lead to either universities, governmental coalitions, or non-profit organizations involved in the development of highly specific applications. One such example is a report that references a recording software created by English Heritage, the state agency charged with the protection and management of England’s historic sites. While many conservation professionals can most likely attest to the uniqueness of their requirements for documentation and information management, it is worth asking whether software

\[\text{\footnotesize \cite{118}}\]

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\[\begin{align*}
118 & \text{ Ibid., 13.} \\
119 & \text{ See } \text{http://extranet.getty.edu/gci/recordim/info.html.} \\
120 & \text{ F. LeBlanc, } \text{Field Trip Report: RecorDIM Partner’s Meeting & Malta Centre for Restoration} \text{ (Leuven, Belgium: The Getty Conservation Institute, 2004), 3 [report online]; available from } \text{http://www.icomos.org/~fleblanc/projects/p_gci_ftr_2004_belgium_malta.pdf; Internet; accessed on 12 April 2007.}
\end{align*}\]
development is the most appropriate place for cultural heritage organizations to invest their time and energy.

To begin with, most projects are already significantly under funded, making it difficult to envision how the high cost of research and development can be paid for. Secondly, since most heritage organizations’ missions specify a pledge to the protection and management of cultural resources rather than to the development of software, there is no fundamental guarantee of an ongoing commitment to the application. Third, the ability to share the software outside of the organization for which it was created will obviously be complicated due to the specificity with which it was developed. Part of the success of those who have contributed truly innovative solutions to the field of historic preservation, came from their ability to make an already existing tool do something totally different than what it was designed to do. If the RecorDIM initiative’s goal is the “bridge the gap” between the technology “users” and “providers,” it is well worth considering the risks involved in guidelines that suggest the use of highly specific, non-mainstream software.

It is imperative that the publication, *Principles and Guidelines for the Recording, Documentation and Information Management of Heritage Places*, be reviewed as soon as possible, so that a more in depth analysis of the recommendations can be made.
5.4 Chapter Conclusion

These case studies have been presented with the intention of broadening the vision for what the historic structure report can be. Though their specific principles and results may differ, the goal of each project reviewed is to facilitate documentation, enhance opportunities for analysis, and share information more effectively. Contrary to the HSR guidelines, each of the initiatives starts out with the intention of incorporating technology. The projects are developed with the understanding that documentation and information management must include discussions about the new tools of the digital age. As long as the guidelines continue to treat technology as an afterthought, the historic structure report will fail to reach its full potential as archive, management tool, and educational resource.
CHAPTER 6: RECOMMENDATIONS FOR CHANGE

In the previous chapter, the case studies were presented to exemplify some of the ways in which technology has already been integrated into documentation and information management. In this final chapter, the discussion will return to how these same techniques can be incorporated into the historic structure report. It will also explain how doing so may actually help the National Park Service to better accomplish its overall mission as steward of many of the country’s most important cultural resources.

It is worth recalling that the HSR guidelines are currently found within the policy, Director’s Order #28: Cultural Resource Management. This thesis has, until now, clearly focused on the minute details of the history, evolution, wording, definition, and use of one specific guideline within this larger policy. However, in order to evaluate how the HSR contributes to the Park Service’s ability to fulfill its overall mission, this broader set of objectives must first be clearly understood.

According to Director’s Order #28, NPS is guided by its belief that the nation’s cultural resources will be best protected and preserved through research, planning, and
stewardship. These three approaches are summarized in “Chapter 1: Fundamental Concepts of Cultural Resource Management” as

the three central issues of [cultural resource] management; first, to discover the significance or meaning of each resource; second, to slow the rate at which their essential material qualities are lost; and third, to support the use and enjoyment of cultural resources while minimizing negative effects on them.

This explanation touches on the responsibility the Park Service has both to the cultural resources as well as to the citizens of the United States. Citing the Secretary of the Interior’s Standards, the policy also suggests that these activities are most successfully accomplished through an interdisciplinary approach.122

It is precisely this interdisciplinary methodology that makes the historic structure report such a complex document. Enormous volumes of multidisciplinary data are generated during its preparation. The history, evolution and significance of a structure are all established using the tools of many fields. The current condition of the site, as well as a variety of possible treatments and future uses are also included in the report. As earlier examples have proven, one of the most significant benefits of HTML is the ease with

121 Ibid., Introduction, 1.
which a user can examine a wide array of data types. Text, images, tabular data, even audio and video recordings can all be easily negotiated from the same archive.

Considering that a multidisciplinary approach is one of the most widely agreed upon guidelines for the HSR, a web-driven platform seems an appropriate way to insure that the diverse data generated be used to its fullest potential.

The ability to perform searches and queries is another benefit of a digital archive. The creation of the *Inventory and Condition Assessment Program* (ICAP) as well as the Historic Structure Assessment Report (HSAR) both indicate NPS’ willingness to experiment with the use of databases from early on. Clearly, the Park Service understands that numbers are more easily stored and analyzed in tabular form. Why not stretch the concept, then, to envision saving images or measured drawings on a web-based platform that also allows a user to search and compare them?

The HSR Task Force placed significant importance on the need to document the decision-making process. The current guideline reflects this sentiment by stating that design “[a]lternatives are [to be] presented in both text and graphic form” in a historic
structure report.\textsuperscript{123} *The Valley of the Shadow*’s option to look at the two counties’ maps individually or side by side is an excellent example of how a digital archive can easily facilitate comparative analysis. For the purposes of the HSR, the county maps from the *Valley* site could be replaced with design or treatment alternatives. Taking it a step further, once the appropriate treatment is completed, before and after images could easily be added to a “digital HSR” in order to enhance the record of decision-making.

The Task Force suggestion to draw from “convenient and reliable sources” during the preparation of a historic structure report received fierce criticism from some. However, inherent in the recommendation was the acknowledgement that times had changed since the inception of the HSR in the 1930s. By the 1990s, many sites had already acquired significant amounts of information about their histories. Over time, historic preservation policy had also changed drastically. The creation of programs such as National Historic Landmarks, as well as the National and Local Registers, have all generated investigations into the histories of many important sites.

\textsuperscript{123} National Park Service, *NPS-28*, Chapter 8, 101.
The critics argued that the so-called “convenient and reliable” sources cited by the Task Force (such as National Register nominations) were often times filled with errors and could not be trusted. However what if one of the sources used was the transcription of a first-hand account found in a famous historian’s award-winning book? What if an article from a prestigious journal already documented a chain of title relevant to the site being investigated? Technology such as Google Book, Google Scholar and JSTOR are currently transforming the way research is being conducted. These resources challenge the notion that there is no trusted, intellectual presence on the Internet. As the number of original works available online increases, the discussion must begin concerning how to best take advantage of them in their new digital format. With the production cost of HSRs already of such concern, it is time that this newly emerging internet be conceived of as an affordable complement to more traditional approaches to research.

This same thinking is what allowed Edward L. Ayers, the historian behind the Valley of the Shadow to develop such an effective example of what can happen when historical research and technology intersect. He and the others involved in the Virginia Center for Digital History insist that the purpose of such initiatives is to “supplement” more commonly used research methodologies, not to replace them. As he puts it, "I'm not
trying to dispense with what we have, and I'm not trying to displace it. I'm just trying to add another way of seeing.” 124 This creative and visionary attitude is necessary in order for professionals in the field of historic preservation to continue with the tradition of innovative problem solving.

The previous suggestions deal with how the preparation of the HSR could be improved through a more effective integration of technology. However, a web-driven archive could also help the National Park Service achieve its broader mission. According to Director’s Order #28 a “primary responsibility of the National Park Service is to identify, protect, and share the cultural resources under its jurisdiction.” 125 The HSR currently plays an important role in both identifying and protecting the historic structures within NPS. However the impact of the report’s ability to help share the history and stories associated with these important structures could be improved through an increased access to the research conducted. The value of the large amount of data generated during the preparation of an HSR does not expire once the report is finished. Nor is the information significant only to the managers of the site. Students, teachers, local historical societies,

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125 National Park Service, NPS-28, Chapter 1, 1.
genealogists, historians and many more facets of the general public could find a wealth of knowledge in a historic structure report. A web-driven archive would permit many more people the chance to utilize the information gathered by an HSR. In the case of resources that may require more sensitivity and privacy such as important religious or burial sites, a simple password protected option could be added to the archive that would prevent general access to the data. These currently available options promise to help the Park Service better share the “cultural resources [that] bring people together with the values and ideas that are necessary for success in contemporary society.”

126 Ibid.
CHAPTER 7: CONCLUSION

In a city like New York, narrow streets can make it difficult for the onlooker to step back sufficiently enough to take in the beauty of the skyscrapers. No matter how much a person strains their neck upwards, regardless of how tightly they press their back to the opposite building, sometimes they are simply too close to see with the perspective they want. Perhaps in some ways, is has been difficult until now to step backwards sufficiently from the impact that technology has had on many facets of the field of historic preservation.

The case studies from the early 1990s serve as stark reminders of how quickly technology continues to evolve. It was not long ago that such simple features as “hyperlinks” still needed to be explained in almost scientific terms. Now, even the most basic level user of the internet can intuitively navigate a website, understanding where to click thanks to a well established visual language. Government agencies, businesses, educational institutions and non-profit organizations all increasingly depend on their websites to inform the public of their work. Though it may be difficult to recall the moment that technology took on such a critical role in workflow production, it is most certainly impossible to imagine operating without it now.
Despite such a strong presence, the use of digital technology in the field of historic preservation is only recently being considered as a topic to be studied in and of itself. Many important initiatives have occurred within individual organizations, however the time has come to begin formalizing this new and necessary component of cultural management. One of the most effective ways that this can be done is through universities. Out of a survey of fourteen graduate programs in historic preservation in the United States, only two offer specific classes in the use of digital media. By establishing coursework that teaches the use of these new tools, tomorrow’s preservation professionals enter the workforce with the training necessary to take full advantage of the available technologies. In addition, classes present an important opportunity to develop and test methodologies in how digital media can be best integrated into the specific needs of cultural heritage.

Project managers must begin to recognize that information management needs be thought about from the very first planning efforts. The proper organization of data takes time and thought depending on the nature of the site, and so preparation must be given to how that process will be carried out. Related to this point is the need to consider designating specific staff positions to information management. With funding as limited as it is, an alternative could be re-writing certain job descriptions to specify that information management is a required task rather than an afterthought.
The National Park Service set a precedent, not only when it published the first HSR in 1935, but when it continued to revisit the preparation guidelines for the report. This commitment to review, update and hopefully improve the report is a clear indication of how important its role is in the preservation and management of historic structures. It is, in part, a result of this well-established willingness to change that this thesis has been undertaken. The recent developments in technology and their implications in cultural resource management are too far-reaching to ignore. This investigation shows that these changes now require that the HSR guidelines be revisited once again, so that this important report can continue to evolve.


Bibliography


APPENDIX A: TIMELINE OF THE EVOLUTION OF THE HSR
APPENDIX B: NATIONAL PARK SERVICE HSR GUIDELINES FROM 
THE HISTORIC AND PREHISTORIC STRUCTURE HANDBOOK, 1963

HISTORIC AND PREHISTORIC STRUCTURES

Part I

Chapter 4

Historic Structures Report

In order to consider the merits of any proposed activity, involving the alteration or a totally disappeared historic structure, it is necessary to have pertinent data on the structure in written form. The following is a guideline for their preparation.

The Superintendent of all Areas will originate Historic Structures Reports for all structures classified as historic when basic stabilization, rehabilitation, remodeling, reconstruction, restoration, or demolition are proposed. Historic Structures Reports will not be required for partial maintenance or emergency stabilization.

Every proposed restoration-reconstruction or other activity involving an historic structure must be considered on its own merits. The importance of the original structure and the type of work to be done on it to fit it for the proposed use will determine the amount of care and expense. The percentage of the original structure remaining is an important consideration, determining the probable validity of any attempt to return it to its historic period. Whether or not it is advisable to return a structure which exhibits evidences of several different ages to one historic period can be determined from an assessment of the facts presented in Part I of the Historic Structures Report.

The extent of these reports should be commensurate with the architectural and/or historic significance of the individual structure. While it is important that complete and accurate information is obtained, care should be taken to prevent inclusion of material important to the classification. Generally speaking, the extent of the report is to vary according to the classification of the structure.

Reports for Class A structures will be more detailed than for Class B for which greatly abbreviated versions will suffice. Drawings and specifications will also be limited. Class C structures, having little or no outstanding architectural or historic significance, need not require any very brief reports. Administrative sections of the latter will be supplemented with photographic coverage and schematic drawings to fulfill architectural requirements. In the majority of cases involving Class C structures, historic documentation is sparse or non-existent. Records will, of course, be made for potential use to preserve highly significant information that may come to light or to interpret unique characteristics or functions.

Report Preparation Responsibility

The Regional Director has the responsibility for coordinating and transmitting the Historic Structures Reports. Superintendents shall prepare the portions of the reports that are within the capabilities of their staffs. Regional Directors shall assist in preparing other sections of the reports, such as the historical and archeological. The Regional Director shall ensure that the historical data of Part II in draft form will be available to the architects prior to their preparation of the Part II architectural data.

The architectural and landscape architectural sections of the report will be prepared by the Design Office, and will have clearance by the Chief, Design Office, before being forwarded to the Regional Director.

Report Distribution, Recommendation and Approval:

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Any report subject to the approval of the Regional Director may be submitted for prior review by the Regional Director or by the Superintendent.

When the Regional Director receives the recommendation of the Chief, Design Office, he will send a consolidated review memorandum to the Superintendent, with a copy to the Chief, Design Office. This consolidated review memorandum will inform the Superintendent that the Regional Director (i) will approve the report if within his authority, or (ii) requests changes and the reason for any changes requested.

If the consolidated review memorandum indicates that the Regional Director will (i) recommend the report to the Director for approval, he will recommend the report previously furnished for this purpose to the Director with copies to the Chief, Design Office and the Superintendent, or (ii) approve the report if within his authority and forward a copy to the Director.

When the consolidated review memorandum requests minor changes which are mutually agreeable, the Regional Director will coordinate the making of the changes in the report, transmit corrected copies to the Director, Chief, Design Office, and Superintendent, and either (i) recommend the report to the Director, or (ii) approve the report if within his authority.

In the event the consolidated review memorandum requests major revisions in the report, the same procedure outlined above for a new report will be followed.

When the Director approves or disapproves the report, the Regional Director will notify the Superintendent with copies to the Superintendent and Chief, Design Office.

Historic Structures Reports consist of three sections: Part I, Part II, and Part III.
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b. One photograph of the existing condition of the structure, for identification purposes only.
1. Copy of PCF, revised if necessary.

4. Historical Data
a. Brief statement of local tradition and historical significance regarding structure.
b. Brief resume of knowledge of the structure from readily available documentary evidence which should include, if possible, information on successive structural changes.
c. Name of architect or designer.
d. Name of builder.
e. Name of owner in historic period.

5. Architectural Data
a. Brief description of structural and architectural design including comparison with other known similar structures.
b. Number of stories.
c. Principle construction materials.
d. Brief description of special features.
e. Brief description of existing condition of basic structure and of exterior and interior finishes.
f. Estimate of extent and cost of additional work required to complete architectural research and investigation under Part II.

6. Archaeological Data (if applicable)
a. List of previous archaeological reports relating to proposed construction activity and summary of pertinent data.
b. Brief statement of purpose and extent of further research proposed, if any.
c. Estimate of cost and time required.

7. Landscape Data
a. Statement of existing physical evidence of historic conditions.
b. Brief resume of knowledge of walls, roads, planting, fences, etc. at historic period, from readily available documentary evidence.
c. Statement of further research and estimate of cost of such research.

8. Furnishing and Exhibition Data, if interior of structure is to be exhibited
a. List and brief evaluation of historic furnishings now in the structure.
b. Statement of provision for drafting a furnishing plan.
c. Outline of proposed method of financing any refurbishing.
d. Estimate of cost of any refurbishing.

Part II

Part II report is the working report that contains the basic information necessary to proceed with the final construction drawings, specifications, and proposed work. It is supplementary to Part I and will be prepared following the approval of Part I through official channels. Part II contains additional information. Nothing need be repeated from Part I except as specifically required by the Part II contents outlined below. When a structure is important architecturally, historically, and/or historically, the Part II report will be a reasonable attempt to exhaust the documentary evidence. Here the importance is the word, "reasonable." Unless the classification is Ada, great care and seriousness of investigation should be given before considering the large expenditure incurred by truly exhaustive research. Results of uncovering portions of the structure for investigation will be stated.

Partially completed final construction drawings shall be included in the Part II report for Class A and Class B structures. The drawings shall be based on existing conditions, the approved Part I report, and the approved preliminary drawings, if any. Final construction drawings are the responsibility of the Design Office. They shall include floor plans, exterior and interior elevations where applicable, details, profiles, and such other information as is considered necessary to portray the exact intent and extent of the work to be accomplished. The completed final construction drawings do not require the Director's approval. They, together with the specifications, are to be transmitted to the Director for record purposes only.

If, during the course of construction, discoveries are made that suggest the advisability of altering or extending the scope of the construction activity, a supplement to the Part II report shall be issued, covering only the portions subject to change and their relation to the whole structure or group of structures.

Contents for Part II:
1. Approval Sheet
2. Title Page and Detailed Table of Contents (The inclusion of many abbreviations in the bodies of architectural and historic sections is desirable to facilitate the finding of particular items in the reports.)
3. Administrative Data
a. Name and number of structure.
b. A condensed restatement of the proposed use of the structure, brought up to date by the inclusion of any more recent decisions as to proposed use.
c. A condensed restatement of provisions for operating the structure.
d. A realistic estimate of cost of proposed construction activity, including copy of revised PCF.
4. Historical Data (It is desirable that this data in draft form be available to the architect prior to Part II architectural data preparation.)
a. Relevant historical data in narrative form. Reasonable efforts should be made to exhaust the documentary evidence.
b. Relevant illustrative documentation, including early descriptions, photographs, paintings, sketches, prints and plans placed in chronological sequence in order that structural changes made at various times can be identified.
c. Description of historical evidence, uncovered by any investigation made within the walls.
5. Architectural Data
a. Record drawings of existing conditions.
b. Photographs of existing conditions.
c. Detailed description of fabric, materials, construction, and existing conditions including results of any investigations made within the walls.
d. Architectural description of proposed construction activity.
6. Archaeological Data (if applicable)
a. Detailed description of the extent of the research, survey, and/or excavations performed, recommended in the approved Part I report.
b. Results of such work.
c. Photographs of findings.
d. Record drawings, if deemed necessary.
7. Landscape Data
a. Record drawings of existing conditions.
b. Record photographs of existing conditions.
c. Detailed description of the extent and findings of research performed, recommended in the approved Part I report.
d. Partially completed final construction drawings of proposed work.
8. Furnishings and Exhibition Data
   a. Statement of any architectural evidence found in the course of the survey which reveals or suggests how the structure was furnished.
      (1) Evidence of lighting and heating devices.
      (2) Evidence of floor coverings.
      (3) Evidence of wall covering and window shades, draperies, etc.
   b. Statement of archeological evidence found in the course of the survey bearing on the furnishings of the structure.
   c. Citation of documentary references to furnishings found in the course of the survey.
   d. Architect's appraisal of the taste and style found in the fabric of the structure which might be reflected in the furnishings.

Part III

The Part III report is the completion report of the project, containing a complete history of the project with "before" and "after" photographs and "as-built" drawings. Information given in Parts I and II need not be repeated, but if a reference is considered necessary, it can be made to the proper heading in Part I or II.

Contents for Part III:
1. Form 10-174, "Completion Report," fully filled out, giving floor and other data.
2. Detailed description of the work.
3. Discussion of any new architectural or historical evidence discovered as a result of the work, given in sufficient detail for interpretation and maintenance purposes.
4. Enumeration of additional research items recommended for future investigation.
5. Enumeration of any justification for any changes from the working drawings and specifications, incorporated in the new construction.
7. Sufficient "before" and "after" photographs, exterior and (if applicable) interior, to illustrate what work was done.
8. Reduced copy of any original drawing considered necessary to indicate the conditions before work was begun.
9. Reduced copies of all final construction drawings, if any.
APPENDIX C: NATIONAL PARK SERVICE HSR GUIDELINES FROM
ACTIVITIES STANDARDS, 1971
Historic Structure Report

The Historic Structure Report presents such findings of historical, archeological, and architectural study and investigation of a historic structure and its setting as are necessary to permit execution at standard of the appropriate level of treatment (preservation, restoration, reconstruction). A Historic Structure Report will be prepared to support all historic structure development projects.

A Historic Structure Report will be considered satisfactory when:

1. It includes each of the subsequent sections as may be applicable to support development:
   a. Administration Section, usually prepared by the Park Superintendent, which will include:
      (1) Administrative statement identifying the project and the proposed treatment based on the Order of Significance and proposed treatment as shown in the List of Classified Structures.
      (2) Outline of cooperative agreements or other documents bearing on furnishing, management, and use of the structure.
   b. Historical Data Section, prepared by the appropriate professional office, which will include:
      (1) Statement of historical significance of the structure and its setting.
      (2) Documentary and illustrative data on the history of ownership, construction, and use compiled at the appropriate level of investigation. (See Part III.)
      (3) Other historical data pertinent to the structure and setting but not to the development project that may be obtained in the course of the investigation and is not already included in a Historic Resource Study. This will be presented separately from the construction data.
      (4) Recommendations for further study if necessary with suggested sources.
      (5) An annotated bibliography of sources consulted.
   c. Archeological Data Section, prepared by the appropriate professional office, which will include:
      (1) Description of investigative plan and techniques.
      (2) Inventory and plat of surface, and subsurface remains and analysis of their contribution to knowledge of the structure and grounds.
      (3) Recommendations for stabilization or restoration.
   d. Architectural Data Section, prepared by the appropriate professional office, which will include:
      (1) Summary of documentary information as it pertains to the structure and its environment.
      (2) Description and record of existing conditions by measured drawings and photography.
      (3) Results of physical investigation of structural fabric.
      (4) Descriptive and graphic indication of probable appearance of structure and grounds during historic periods.
      (5) Recommended steps for preservation, restoration, or reconstruction including preliminary drawings.
      (6) Updated Form 10-802 (Package Estimating Detail) providing cost estimates to carry out recommendations.
      (7) Recommendations for further study if necessary.

NOTE: Usually the Historical Data Section is undertaken first to provide documentary data to the archeologist and historical architect as a basis for their studies. All sections may be combined in a common report, or they may be reproduced separately if there is a timing in their preparation.

Historic Structure Preservation Guide

The Historic Structure Preservation Guide is a reference document, tailored to the individual needs of a restored or reconstructed structure, from which park management may obtain guidance for continuing normal maintenance and minor repairs. It is ordinarily prepared at the conclusion of a development project as part of the construction supervision (identified as such on Form 10-233), but for completed projects lacking such a guide may also be prepared in the annual professional services program.

A Historic Structures Preservation Guide will be considered satisfactory when:

1. Documents new historical, archeological, and architectural data learned in the process of construction and not included in a Historic Resource Study or Historic Structure Report.
2. Includes all drawings, technical specifications, and change orders used to carry out the project. Drawings may be reduced to lesser size.
3. Provides detailed specifications for expendable items such as roof coverings so they may be replaced in material, design and texture as in the original.
4. Contains a schedule of paint colors related to a color standard such as the Munsell Color System and a suggested program for paint maintenance and repainting, giving formulas where special materials and textures are required.
5. Provides formulas and specifications for mortars, waterproofing, floor finishes, glazing, and any item not found in the normal market.
6. Provides manufacturer recommendations for maintenance where available.
7. Provides a schedule of periodic inspection to assure proper preservation.

December 21, 1971
APPENDIX D: NATIONAL PARK SERVICE HSR GUIDELINES FROM THE
HISTORIC PRESERVATION FUND, GRANTS MANAGEMENT MANUAL, 1979

1. Historic structures reports.
   a. Purpose. The report should be utilized (1) to analyze the structure, (2) to establish preservation objectives for the property, and (3) to schedule the accomplishment of these preservation objectives. The applicability of the various areas for research and analysis will vary, depending upon the preservation objectives and the physical condition of the historic property.
   b. When historic structure reports are required. When a grant assisted rehabilitation, restoration or reconstruction project involves fabricating significant missing architectural or landscape features, recapturing the appearance of a property or one particular period of its history, or removing later additions, a historic structure report must be completed prior to the preparation of a development project application. The construction phase of planned project work cannot be approved by HABS in such cases until the required documentation has been satisfactorily completed.
   c. Recommended format for historic structures reports:
      1) Table of contents
      2) Foreword or introduction, when appropriate
      3) Brief history of the property
         -- Significance and Historic Events
         -- People Associated with, etc.
      4) Construction History (Original)
         -- Chronology
         -- Documentation (Research)
         -- Labor
         -- Materials
         -- Craftsmen/Builders/Architects associated with the property
      5) Contemporary Descriptions
         -- Newspaper
         -- Letters, Diaries, etc.
         -- Photographs (Early)
      6) Alterations and Changes
         -- Chronology
         -- Description and Documentation
         -- Construction Related Documents
         -- Contemporary Descriptions
         -- Photographs (Early)
         -- Architectural Investigation
         -- Archeology
      7) Existing Conditions
         -- General Statement of Condition and Harm
         -- Water-related Environment and Site Conditions
         -- Roof
         -- Walls
         -- Foundation
         -- Chimneys
         -- Windows and Doors
         -- Parapets, Porches, Portico's
         -- Finishes/Details/Removal/Reinstatement
      8) Interior of Building (Materials, construction, and identification of problems)
         -- General Statement of Condition
         -- Fixtures and Building Mechanical Systems
         -- Heating, Lighting, Plumbing, Electrical, etc.
         -- Room by Room Analysis
         -- Floors
         -- Walls
         -- Ceilings
         -- Molding
         -- Doors
         -- Windows
      9) Measured Drawings, Architectural Plans, Elevations, Section, Details, Photographs of Details and Elevations
      10) Evaluation of the documentation and development of the proposal for restoration/rehabilitation or reconstruction
         -- Preservation Objectives: Use, etc.
         -- Survey of Necessary Work (List of Work, Priorities, Estimated Costs)
         -- Structural Work
         -- Mechanical Work
         -- Other Work

2. Historical documentation.
   a. Purpose. Observers must ensure that professional concepts, methods, and techniques are employed in order to make optimum use of funds and resources, and to contribute effectively to the acquisition, protection, stabilization, preservation, rehabilitation, restoration, or reconstruction of properties listed in the National Register.
   b. When historic documentation is required. When acquisition and development projects involve fabricating significant architectural or landscape features, historical research about the project must be supervised by professionally qualified individuals (see 36 CFR 61 for professional staff requirements).
   c. Guidelines for historical documentation. In order to understand the changes in a historic property over time the grants should perform an analysis appropriate to the work to be performed. The analysis should result in an understanding of the property based upon information gained from documentary investigation, with particular emphasis, upon owners and occupants, and their influence on the evolution or development of the property. The following sources can be consulted:
      -- Official records that may contain relevant information such as deeds, wills, chancery and civil suits, licenses, tax records, charters, ordinances, insurance policies, inventories, and account books related to the property.
      -- Repositories of early photographs, maps and sketches.
      -- Diaries, letters, papers, and newspaper accounts of persons associated with the property.
      -- Ethnic or social customs or regional characteristics, pertaining to building practices and property planning.

3. Architectural documentation.
   a. Purpose. The purpose of the investigation is to synthesize the physical evidence derived from examining a structure, and comparable structures of the period and region, in conjunction with evidence supplied by historians and archeologists.
   b. When Architectural Documentation is required. General study and evaluation should proceed any potentially destructive intrusion into the building materials of a historic property, and non-destructive methods must be used wherever possible. Architectural documentation must be completed before HABS can approve any construction phase of planned work for a particular historic property.
   c. Guidelines for architectural documentation. When architectural investigations are appropriate for a grant assisted project, the investigation must be supervised by professionally qualified individuals (see 36 CFR 61 for professional staff requirements).

Architectural documentation includes the appropriate elements of the following:

1) Measured drawings and photographs to record properly the building or structure, and to accurately portray the plan, elevations and sections to understand the building or structure’s materials and construction. For certain unusually large or complicated historic properties or for multiple resource projects in historic districts
photogrammetry may be helpful in recording unusual, irregular or complex details.

2) Comparison with other buildings or structures in the area, or other works by the same architect, designer or builder to clarify a building's general style and regional variations. Distinction from previous styles and any contribution to succeeding ones should also be noted.

3) Period source books and pattern books to identify or duplicate original detailing or decorative items.

4) Materials, construction details, tool marks, texture, and color to reveal information pertaining to the physical characteristics and condition of the building.

In the preparation of acquisition and development project applications, consideration must be given to the historic setting, including the landscape and its condition, the plant material and animal life, the scale, materials, and spacing of the building, and other cultural or living patterns which are a part of the historic property.

The historic setting should be preserved in a manner commensurate with its significance as an integral part of a National Register property. A conscientious effort should be made to prevent intrusion upon the historic scene by noncharacteristic visual, audible or atmospheric elements. In addition, the effect upon the present natural, social, economic, cultural, and aesthetic environment caused by an historic preservation project must be thoroughly considered.
APPENDIX E: NATIONAL PARK SERVICE HSR AND HSPG GUIDELINES FROM THE CULTURAL RESOURCE MANAGEMENT GUIDELINE (NPS-28), RELEASE NO. 2, 1981

APPENDIX F: PREPARING A HISTORIC STRUCTURE REPORT

Each historic structure report must include three elements:

1. The name, number, management category, and proposed treatment of the structure, as recorded in the List of Classified Structures.
2. A description and record of existing conditions, using measured drawings, photography, or other appropriate means.
3. An engineering report on safety and load-bearing limits of the structure as warranted by the proposed use or apparent condition.

A description and record of existing conditions, using measured drawings, photography, or other appropriate means:

- An identification and analysis of significant material, structural, natural, environmental, and human factors affecting preservation of the structure and recommended measures to deal with them, including any constraints on proposed use.

An engineering report on safety and load-bearing limits of the structure as warranted by the proposed use or apparent condition:

- A description and record of existing conditions, using measured drawings, photography, or other appropriate means.
- An evaluation of the impact of the proposed use on the structure or its contents (if any) in accordance with 36 CFR 800.3, and on other affected cultural resources and the historic scene, with recommendations to avoid or mitigate any potential adverse effects.

A recommendation for further study in support of the proposed treatment project:

- A record of all fabric analyses performed (paint, mortar, etc.) listing basic data with specific recommendations for treatment.
- An assessment of future anthropological/archaeological, historical, and/or architectural/engineering research potential.
- Records of any documentary data such as furnishings evidence, found during the investigation that are pertinent to the structure or setting but not to the treatment project for which the report was funded; comprehensive collection of data should be undertaken under separately funded studies (see the discussion below).
- An annotated bibliography of sources.

A description and record of existing conditions, using measured drawings, photography, or other appropriate means:

- An identification and analysis of significant material, structural, natural, environmental, and human factors affecting preservation of the structure and recommended measures to deal with them, including any constraints on proposed use.
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APT Vol. XIV No. 4 1982


CULTURAL RESOURCES MANAGEMENT
NPS-28
Chapter 3

Guideline

APPENDIX C: PREPARING A HISTORIC STRUCTURE PRESERVATION GUIDE

Historic structure preservation guides are working documents. They are produced in loose-leaf format with the pages sized so they can be updated whenever necessary without reprinting the entire document.

In order to develop a usable plan, park maintenance personnel, a historical architect, archeologist/architectural historian, and a curator (if appropriate) must play an active part in its formulation. The following procedures for developing an HSPG are to be used:

As a first step, a historical architect, an archeologist, a curator, and a historian (as appropriate) will assemble basic inspection and preservation instructions, material specifications, and prepare or modify as-built drawings and other pertinent reference materials.

Upon completion of an initial draft of the above documents, the specialists and the park staff will meet at the site. It is important that all members of the park staff concerned with the use as well as the preservation of the resources participate to ensure that all are aware of what the HSPG is, what it contains, and how it is to be used. Copies of draft will be forwarded to the park before the meeting, and attendees will be expected to suggest additions, changes, or deletions.

Upon receipt of the initial draft of the guide, the park staff is to draft a cyclic preservation maintenance schedule based on it. This document can be reviewed when the specialists visit the site.

Based on the revised draft of the guide resulting from the above meeting, the document is to be completed and submitted for parks concurrence and regional approval.

PREPARATION

The guides contain three major sections: instructions, schedules, and reference materials.

INSTRUCTIONS - SECTION 1

The Instructions section is organized in the Construction Specification Institute’s format, with some modifications. That format provides 16 subject divisions (e.g., concrete, wood and plastics), with topic headings under each subject for specific items (the complete listing follows).

Division 1 provides general data, references, and instructions pertaining to the guide, including background information and the rationale for treatment of the structure(s) (topic 1000), a brief explanation of pertinent regulatory constraints and procedures governing the preservation of resources (topics 0100, 0200, 0300), and general instructions on the formulation and use of maintenance and inspection schedules (topics 0300, 0400). A list of references is included at the end of this division (topic 0900).

Divisions 2-16 contain the body of the instructions. Division 12 includes the housekeeping of furnishings contained within a given structure. Particular attention may be given to Section 12700 entitled “Hotels.” This refers to such items as stoves, fixtures, utilities, etc., that are retained for display purposes and which may or may not be in active use. All non-structural equipment which is contained within the structure for active use would be contained in Divisions 11 and 13-16 as appropriate.

Each division is organized by relevant CSI topic headings, and each topic is further divided into three parts, as follows:

Inspection Instructions: Inspection instructions cover what to inspect, what to look for in terms of unsatisfactory conditions, and, where appropriate, some quantifying factors (such as how much paint deterioration is permissible before repainting). Note that the inspection instructions are not the same as the inspection schedule (see “Schedules,” Section 2).

Preservation instructions: This part contains instructions on the various preservation activities. Activities are divided into three basic categories: housekeeping, routine maintenance, and cyclic maintenance. Housekeeping is the removal of undesirable or harmful deposits on soil or dirt. Routine maintenance consists of all service activities like tightening, adjusting, and oiling. Housekeeping and routine maintenance treatment are performed more frequently than annually and are funded from the park’s non-maintenance account. Cyclic preservation treatment usually involves replacement or at least mending of the structural fabric, it is performed less frequently than annually and is funded from the regional cultural resources cyclic maintenance account.

Materials Specifications: This part specifies the materials and, where necessary, the tools needed to carry out preservation instructions.

The following table contains the current division listings.

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Division 7

Thermal and Moisture Protection

- 07200 Insulation
- 07300 Shingles
- 07400 Roofing tiles
- 07500 Siding
- 07600 Membrane roofing
- 07800 Sheet metal roofing
- 07900 Flashing and trim
- 08100 Gutters and downspouts
- 08600 Gravel stops
- 08700 Skylights
- 08800 Hatches

Division 8

Doors and Windows

- 09000 Metal doors
- 09200 Wood doors
- 09300 Screen and storm doors
- 09500 Metal windows
- 09600 Wood windows
- 09700 Screened openings
- 09800 Hardware
- 09900 Glazing

Division 9

Finishes

- 10100 Lath and plaster
- 10200 Wallboard
- 10300 Tile
- 10400 Resilient flooring
- 10600 Carpeting
- 10900 Painting
- 10950 Wall covering

Division 10

Specialties

- 10200 Louvers and vents
- 10300 Fireplaces
- 10400 Signs

Division 11

Equipment

- 11930 Audio-visual equipment

Division 12

Furnishings

- 12500 Artwork
- 12900 Window treatments
- 12950 Furniture
- 12700 Floor coverings
- 12750 Historic equipment
- 12800 Furnishings accessories

Division 13

Special Structures

- 13000 Swimming pool

Division 14

Conveying Systems

- 14100 Dumbwaiters
- 14200 Elevators
- 14900 Chutes

Division 15

Mechanical

- 15200 Water supply system
- 15300 Wastewater disposal system
- 15900 Fire protection systems
- 16000 Heating/cooling systems

Division 16

Electrical

- 16100 Basic wiring system
- 16500 Lighting
- 16600 Lighting protection
- 16700 Alarm and detection systems
- 16750 Telephones
- 16800 Portable electric heating/cooling equipment
- 16900 Controls and instrumentation

Schedules - Section 2

Two basic types of schedules are contained in the historic structure preservation guides: the cyclic preservation maintenance schedule and the inspection schedule(s).

Cyclic Preservation Maintenance Schedule. This type schedule includes all of the preservation activities required under the instructions. Factors that should be considered in scheduling these activities include:

- Frequency
- Location (is the work to be performed in situ or off a shop or other special facility?)
- The preparation and cleanup, transportation, actual task time

Maintenance Inspection forms are being developed and will be published later.

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A historic structure is "a constructed work... consciously created to serve some human activity." Historic structures are usually immovable, although some have been relocated and others are mobile by design. They include buildings and monuments, dams, millraces and canals, nautical vessels, bridges, tunnels and roads, railroad locomotives, rolling stock and track, stockades and fences, defensive works, temple mounds and kivas, ruins of all structural types, and outdoor sculpture.

Prehistoric structures are included in this chapter because the technical aspects of their preservation are similar to those of many historic structures. All prehistoric structures are also archaeological resources, and some are ethnographic resources. They should therefore be managed within the general provisions of Chapters 6 and 10, particularly with respect to research and planning. Prehistoric structures are further distinguished by National Park Service policy limitations on their use and treatment. Given these qualifications, the term "historic structure" in this guideline is meant to encompass prehistoric structures unless otherwise stated.

2. Program Objectives

According to both federal law and NPS Management Policies, all historic structures in which the Service has a legal interest are to be managed as cultural resources. Regardless of type, level of significance, or current function, every structure is to receive full consideration for its historical values whenever a decision is made that might affect its integrity. Historic structures that are central to the legislated purposes of parks, especially those that are to be interpreted, may be subjects of additional, specialized efforts appropriate to their functions and significance.

The preservation of historic structures involves two basic concerns: slowing the rate at which historic material is lost, and maintaining historic character. Research, planning, and stewardship of historic structures focus on these concerns. Research defines historical associations, integrity, character, and the causes of material deterioration; planning develops and evaluates proposals for use and treatment in terms of their likely effects; and stewardship entails activities ranging from craft training to the identification and mitigation of threats.
Preservation of historic structures is an interdisciplinary effort requiring cooperation and communication among historical architects, architectural conservators, preservation specialists, archeologists, landscape architects, historians, ethnographers, and curators.

**B. Research**

Research about historic structures is a prerequisite for treatment and provides a basis for decision-making by managers. Situations benefiting from research-generated information range from review of weekly maintenance projects to long-term planning projects. Research also contributes to interpretation, compliance, and facility design.

To accomplish these purposes, research typically concentrates on three broad aspects of a historic structure: its historical, technical, aesthetic, or scientific associations; its developmental history or evolution; and the nature, performance, and capability of its materials and systems. This information is collected, analyzed, and organized through a variety of means, discussed below.

1. **Identification, Evaluation, and Registration**

Section 110 of the National Historic Preservation Act requires the NPS to identify and nominate to the National Register of Historic Places all structures and other properties under its jurisdiction that appear eligible. Historical areas of the national park system are automatically listed in the National Register in toto upon their establishment by law or executive order, but those structures and other features within them that contribute to their historical significance must still be documented for Register purposes.

a. **Historic Resource Study**

The historic resource study (HRS) is the primary document used to identify and manage the historic resources in a park. It is the basis for understanding their significance and interrelationships, a point of departure for development of interpretive plans, and the framework within which additional research should be initiated.

Although structures may be nominated to the National Register on an individual basis, they are most efficiently processed as part of an HRS. (For more guidance see "Baseline Research Reports" in Chapter 2.) With respect to historic structures, an HRS is adequate when three conditions—required for National Register nomination—are met. First, the thematic context must be sufficient to evaluate historical, aesthetic, technical, or scientific associations of structures within the study area. Second, the HRS must contain enough information about the developmental history or evolution of each structure to evaluate its integrity. Third, the study must contain enough information about the contributing environment of each structure to enable National Register boundaries to be defined and possible overlaps with cultural landscapes and archeological or ethnographic resources to be identified.

Research on structures or topics that were not included in an earlier HRS should be published as an addendum to that document.

b. **National Register Nominations**
National Register nominations may be prepared either for individual structures or for groups of structures. Collective nominations are appropriate for structures that are physically related, as in a historic district, or thematically related, as in a multiple property nomination. (For additional guidance see "Resource Identification, Evaluation, and Registration" in Chapter 2.)

As noted in the introduction to this guideline, the cultural resource types in the NPS Management Policies and this guideline are adaptations for management purposes of the property categories used by the National Register. Park resources classified as structures may be listed as buildings, structures, or objects in the National Register. Historic and prehistoric structures also may be included in the Register as contributing elements of historic districts, either as components of developed areas or as landscape features.

c. List of Classified Structures

The List of Classified Structures (LCS) is the primary computerized database containing information about historic and prehistoric structures in which the NPS has or plans to acquire any legal interest. Properties included in the LCS are either in or eligible for the National Register or are to be treated as cultural resources by law, policy, or decision reached through the planning process even though they do not meet all National Register requirements. Data fields in the LCS include identification, category of significance, condition, use, threats, treatments, cost estimates for treatments, and physical description.

The LCS has three major applications: (a) to describe historic structures on an individual or collective basis at park, regional, or Service-wide levels, (b) as a common information source for other automated management systems such as the Maintenance Management (MM) program and the Housing Inventory, and (c) as an analytical tool in budgeting, scheduling, and program development.

(For more information see "Service-wide Inventories" in Chapter 2 and the List of Classified Structures [LCS] User's Manual, 1993.)

d. Categories of Significance

All cultural resources are managed under a uniform standard of preservation responsibility. The following categories of significance are used to establish LCS management categories, determine appropriate levels of graphic documentation, and make other related management decisions for prehistoric and historic structures within the national park system.

Category Ia: Individual structures that qualify as national historic landmarks, are listed in the National Register as nationally significant, or that possess national significance by act of Congress or executive order.

Category Ib: Structures that do not possess national significance on an individual basis, but contribute to the national significance of a park or historic district.

Category II: Structures that individually or collectively qualify for the National Register and possess significance at the state level.
Category III: Structures that individually or collectively qualify for the National Register and possess significance at the local level.

2. Documentation and Investigation

As a rule, research about a historic structure should complement existing information and strive to produce a comprehensive understanding of the structure in order to adequately address management objectives. Research effort should be proportional to the significance of the structure and the range of effects associated with the objectives. Although individual features, areas, or systems may be emphasized, research should approach the structure as a whole.

Research needed to supply missing information should be defined in terms of subject, scope, and level of investigation. The subject may range from one feature on a single historic structure to a complex of structures. Scope includes but is not limited to thematic context, physical documentation, temporal associations, developmental history, scientific value, and material analysis. Level of investigation describes the nature and location of sources to be consulted and the degree to which extant material will be disturbed or destroyed during research. These considerations are described in the task directive and research design for every substantial research effort. (See "Research Methodology" in Chapter 2.)

Destructive techniques, such as archeological excavation and selective demolition, should be used only when alternatives are inadequate to provide information essential for evaluating, planning for, treating, or interpreting a historic structure. Any research that would directly impact a cultural resource must be reviewed in advance through the compliance process. Research involving prehistoric and some historic structures may also require consultation with Native Americans or other associated ethnic groups.

a. Historic Structure Report

The historic structure report (HSR) is the primary guide to treatment and use of a historic structure and may also be used in managing a prehistoric structure. A separate HSR should be prepared for every major structure managed as a cultural resource. Groups of similar structures or ensembles of small, simple structures may be addressed in a single report. In no case should restoration, reconstruction, or extensive rehabilitation of any structure be undertaken without an approved HSR, Parts 1 and 2.

An HSR includes the following:

Management Summary. This is a concise account of research done to produce the HSR, major research findings, major issues identified in the task directive, and recommendations for treatment and use. Administrative data on the structure and related studies are included.

Part 1, Developmental History, is a scholarly report documenting the evolution of a historic structure, its current condition, and the causes of its deterioration. It is based on documentary research and physical examination. The scope of documentary research may extend beyond the physical development of the structure if needed to clarify the significance of the resource or to refine contextual associations; however, major historical investigation of contextual themes or background information should be conducted as part of a historic resource study. If the Inventory and Condition Assessment Program
(ICAP) is used to describe the nature and condition of features, resultant reports (e.g., the historic asset assessment report) should be included in the HSR's appendix.

Part 2, Treatment and Use, presents and evaluates alternative uses and treatments for a historic structure. Emphasis is on preserving extant historic material and resolving conflicts that might result from a structure's "ultimate treatment." Part 2 concludes by recommending a treatment and use responding to objectives identified by park management. In most cases, design work does not go beyond schematics.

Part 3, Record of Treatment, is a compilation of information documenting actual treatment. It includes accounting data, photographs, sketches, and narratives outlining the course of work, conditions encountered, and materials used.

All aspects of a historic structure and its immediate grounds should be addressed in an HSR. Potential overlaps with other cultural resource types and natural resource issues should be identified, and applicable studies and reports should be called for or referenced. An HSR and analogous reports (e.g., a cultural landscape report) may be combined to address multiple resource types at a single property or area.

MODEL HSR CONTENTS

i. Cover Page
ii. Table of Contents
iii. Executive Summary. This introductory text provides a concise account of (a) research done to produce the HSR, (b) major research findings, (c) major issues identified in the task directive, and (d) recommendations for treatment or use. Deviations from general planning documents should be identified here and discussed more fully in the body of the report.
iv. Administrative Data. This section contains (a) names, numbers, and locational data used to refer to the historic structure, (b) the proposed treatment of the structure including the source document, (c) related studies, (d) cultural resource data including date listed in the National Register, period of significance, and context of significance, and (e) recommendations for documentation, cataloging, and storage of materials generated by the HSR.

PART 1. DEVELOPMENTAL HISTORY

A. Historical Background and Context. This section briefly describes the people and events associated with the structure. The section should establish a recommended period or periods of significance if this has not been done in the National Register nomination or historic resource study (HRS).
B. Chronology of Development and Use. Physical construction, modification, and use of the structure is summarized in this section. The text should be based on historical documentation with corroboration from first-hand observation and materials analysis.
C. Physical Description. This section contains a systematic accounting of all features, materials, and spaces according to age, significance, and condition. Copies of computer-generated inspection reports should be included in the appendix but summarized in the body of the chapter. The text should also discuss causes of deterioration and structural adequacy.
PART 2. TREATMENT AND USE

- A. Ultimate Treatment and Use. This narrative discusses and analyzes the ultimate treatment and use of the structure as defined in park planning documents. If they have not been defined, this section may recommend an ultimate treatment and use. If analysis of the structure suggests that a planned treatment or use would adversely affect it, the text may present an alternative approach.

- B. Requirements for Treatment. In concise terms, this text outlines applicable laws, regulations, and functional requirements. Specific attention should be given to issues of human safety, fire protection, energy conservation, abatement of hazardous materials, and handicapped accessibility.

- C. Alternatives for Treatment. This section presents and evaluates alternative approaches to realization of the ultimate treatment. Alternatives are presented in both text and graphic form. Analysis addresses the adequacy of each solution in terms of impact on historic materials, effect on historic character, compliance with NPS policy, and other management objectives. The section concludes with elaboration on the recommended course of action and specific recommendations for preservation treatments.

PART 3. RECORD OF TREATMENT

- A. Completion Report. This section summarizes (a) the intent of the work, (b) the way in which the work was approached and accomplished, (c) the time required to do the work, and (d) the cost of the work. It also describes any information about the history of the structure based on physical evidence discovered during construction.

- B. Technical Data. This portion of the report contains copies of field reports, material data sheets, field notes, correspondence, accounting spread sheets, and contract summaries.

APPENDIX

Bibliography
Drawings
Photographs
Materials Analysis

Parts 1 and 2 of an HSR should be prepared jointly as part of a comprehensive effort soon after acquisition of a structure or recognition of its status as a cultural resource. Given funding and time constraints, however, an HSR may be prepared incrementally. Incremental research and design should also be considered when a complete HSR does not exist or an existing HSR does not adequately address aspects of a proposed treatment such as replication of missing features, removal of significant features or large amounts of historic material, or introduction of new systems or exterior additions. In no case should a Part 2 be prepared without a Part 1.

The scope, level of investigation, and extent of schematic development are outlined in a task directive that is based on the recommendations of a historical architect in consultation with other cultural resource...
specialists and the park manager. Major factors considered in developing the task directive include the structure’s significance, condition, and intended use. The task directive should also address participation of other cultural resource specialists and publication of the document.

The following standards apply:

- A historic structure report (HSR) is prepared to minimize loss of character-defining features and materials whenever existing information about the developmental history and condition of the historic structure does not provide an adequate basis upon which to address anticipated management objectives, whenever alternative courses of action for impending treatment and use could have adverse effects, or to record treatment.
- Architectural, landscape, and archeological investigations supporting an HSR have the least possible impact on the property studied and employ nondestructive methods to the maximum extent possible; they are prescribed and justified in a task directive that includes a research design and impact analysis.

b. Graphic Documentation

Documentation of historic structures is undertaken to record preservation treatment, provide a baseline for monitoring, aid in interpretation, support scholarly research, and serve as an objective reference for repair or reconstruction in the event of damage or loss. The scope, method, and level of documentation of a structure should be proportional to its significance as a cultural resource, the character of its features, the degree to which it is endangered, and the ways in which the documentation is most likely to be used.

All documentation is done in conformance with the Secretary of the Interior's Standards for Architectural and Engineering Documentation (see Appendix C). Where recording is done to establish a baseline for planning or before demolition, the following documentation levels are recommended: Level I for Category Ia structures, Level II for Category Ib structures, Level III for Category II structures, and Level IV for Category III structures.

New materials and replacement features introduced should be recorded in place with photographs or drawings that clearly indicate their extent. Physical evidence of the developmental history of a structure should be recorded before being removed or covered during treatment. Copies of task directives, daily reports, and change orders should also be retained in park files.

c. Archival Considerations

Although comprehensive, in-depth research is an ideal foundation for preservation work, most information about historic structures is collected on a piecemeal basis throughout the resource management process. Primary information sources include contextual studies, records of treatment, records of structural monitoring, photographic and graphic documentation, and reports of material analysis and archival research. To maximize the benefit of this work and minimize potential data loss, all field notes, primary documents, original maps, drawings, photographs, material samples, and oral histories generated during resource management are organized and preserved as archival material or museum objects in consultation with the park or support office curator.
C. Planning

Planning for historic structures encompasses such diverse activities as involvement in park planning, facility design, preparation of maintenance work procedures, and compliance. The central purpose of all such activities is to identify ways of protecting cultural resources while achieving other management objectives. This is usually best done by thoughtful evaluation of a diverse range of alternatives.

General direction for managing a park's historic structures is provided in its general management plan, development concept plan(s), interpretive prospectus, and resources management plan. Action plans that may affect historic structures include historic furnishing reports and cultural landscape reports. Historic structures may also figure prominently in planning for special populations and fire and energy management.

Treatment and use are the central issues in planning for historic structures. Closely related concerns include consideration of park administrative and interpretive needs, compatibility of new and old development, accommodation of building codes and contemporary regulations, and the overall condition of the structures.

1. Treatment Planning

Historic structure treatment involves one or more of the following actions: (a) preservation of existing materials, (b) replication of missing historic features, (c) addition of nonhistoric features, and (d) removal of existing features or materials.

Decisions about treatment occur at three planning levels. First, the ultimate treatment of a structure is established in the park's general management plan or development concept plan. Second, major conflicts inherent in the ultimate treatment or other related treatments are identified and resolved through an HSR, Part 2. Third, plans and specifications are prepared to direct construction or preservation maintenance. Standardized direction for preservation maintenance is provided by work procedures contained in the Historic Property Preservation Database (HPPD).

Decisions about treatment should reflect the value of a structure as a cultural resource, knowledge of craft techniques and building materials, consideration of current and intended uses, appreciation of threats to the structure, and projections of treatment costs relative to likely funding.

a. Ultimate Treatment

The ultimate treatment of a historic structure is a general definition of its development limits based on considerations of use and the historic character that should be presented to the public. It is accomplished through one or more construction projects, after which the structure is preserved by preservation maintenance. Subsequent rehabilitation or restoration may be needed to update the structure's functional aspects and to repair or replace damaged or deteriorated features. Pending ultimate treatment, a structure is stabilized and protected in its existing condition; it may also receive interim treatment compatible with its planned appearance and use.
The categories of ultimate treatment are preservation, rehabilitation, restoration, and reconstruction.

**Preservation** as an ultimate treatment maintains the existing integrity and character of a historic structure. This alternative precludes uses that would require major additions or demolition. It should always receive first consideration.

**Rehabilitation** maintains the existing integrity and character of a historic structure, but allows major additions or alterations to accommodate a compatible contemporary use. Rehabilitation does not apply to prehistoric structures, ruins, monuments, or outdoor sculpture, nor should it be the ultimate treatment for historically furnished historic structures even though they may require major modifications to perform as such.

**Restoration** reestablishes the form, features, and character of a historic structure at a specific past period. Restoration may be comprehensive or focus on the exterior. Complete restoration is done primarily to Category Ia structures and structures containing historic furnishings, although secondary aspects of their interiors may be adaptively used. Exterior restoration applies primarily to Category Ib structures and some Category Ia structures that are integral to the historic settings of parks. Treatment and use of their interiors must meet corresponding standards and must not affect the desired exterior appearance. Management Policies permits restoration only if (a) it is essential for public understanding of the cultural associations of a park and (2) it can be accomplished with minimal conjecture based on sufficient data. Restoration of prehistoric or historic ruins is prohibited.

**Reconstruction** produces a new structure identical in form, features, and details to a historic structure that no longer exists. Management Policies permits reconstruction only if (a) it is essential for public understanding of the cultural associations of a park established for that purpose, (b) the structure can be built at full scale on the original site with minimal conjecture, and (c) significant archeological resources will be preserved in situ or their research values will be realized through data recovery. Meeting the first criterion requires a demonstration that no other interpretive media or techniques can render the park's primary theme comprehensible to visitors. Reconstruction will be undertaken only upon specific written approval of the director after policy review in the Washington office.

**b. Historic Property Preservation Database (HPPD)**

The HPPD is a computerized database containing technical information on the treatment of historic and prehistoric structures and cultural landscapes. It contains work procedures for the Inventory and Condition Assessment Program (ICAP) and Maintenance Management (MM) program. Work procedures include skill requirements, work consideration, material and equipment selection, and work instructions. The HPPD also contains information for more intensive treatments such as rehabilitation and restoration.

**c. Removal or Neglect**

Demolishing a historic structure or deliberately allowing it to decay naturally is justifiable only when all alternatives have been determined infeasible in the planning process. Management Policies prohibits demolition unless necessary for public safety or to eliminate an unacceptable intrusion.
No structure listed in or potentially eligible for the National Register will be removed or deliberately neglected without review by cultural resource specialists and approval by the regional director. If a potentially eligible structure has not been evaluated for the National Register, the state historic preservation officer (SHPO) will be consulted regarding its eligibility. If the SHPO agrees that the structure does not meet National Register criteria, removal or deliberate neglect may occur without further consultation under Section 106 of the National Historic Preservation Act.

Before a structure eligible for the National Register is removed or allowed to deteriorate, documentation recording it must be prepared in accordance with Section 110(b) of the National Historic Preservation Act and must be submitted to and accepted by the Chief, HABS/HAER Program. (For additional information see “Graphic Documentation,” above.)

2. Use of Historic Structures

Many historic (but not prehistoric) structures directly support park functions by serving as visitor centers, housing, or administrative offices. Some such uses follow historical precedents; others are new, adaptive uses. The primary preservation issue in either case is the compatibility of the use with the structure. Considerations include wear patterns, adequacy of space and spatial configurations, the need for new electrical or mechanical systems, increases in fire risk, and changes necessary to accommodate disabled employees or visitors. Whenever possible, historic structures should be used rather than new facilities constructed.

Historic (but not prehistoric) structures may be assigned to other entities through leases, permits, or concession agreements if there are no feasible NPS uses. (See "Partnerships," below.)

a. Park Housing

The Federal Employees Quarters and Facilities Act of 1964 (P.L. 88-459) authorizes agencies to provide employee housing at fair-market rental value when necessary service or protection cannot otherwise be rendered or when community housing is inadequate.

NPS policy allows historic structures to be used for housing when "a given historic structure can be rehabilitated to meet housing standards without adversely affecting its historic character and if the rehabilitated structure will meet a need identified in the Park Housing Management Plan." Housing in Category Ia and Ib structures or structures used in part as museums is generally inappropriate.

(For more information see the Housing Design and Rehabilitation Guideline [NPS-76] and the Government Furnished Housing Guideline [NPS-36].)

b. Museums

Historic structures are often expected to house museum objects including historic furnishings. The furnishings may be historically associated with the structures or replacement items of the same vintage. While such museum use may be appropriate and even mandated, the requirements of collection management and the effects of public access should first be thoroughly explored and evaluated through preparation and approval of an HSR. Specific issues to be studied include energy utilization,
accessibility, security and fire protection, and environmental control.

Historic structures containing related historic furnishings are managed so that measures to meet curatorial standards and measures to meet structure preservation standards are balanced. Proposals to furnish a historic structure with replacement or reproduction furnishings should be carefully evaluated to ensure that physical work to meet curatorial standards will not entail unacceptable adverse effects on the structure.

3. Commemorative Works and Plaques

Commemorative works will be erected in parks only if authorized by Congress or approved by the director. Approved commemorative works will be sited to avoid disturbance of natural and cultural resources and values. Plaques or other memorial devices will not be affixed to historic structural material.

Construction of a commemorative work will not be approved until a determination is made that the work will meet NPS design and maintenance standards. Recommendations for approval will be made by persons qualified in the fields of preservation, park design, and maintenance. Once constructed, commemorative works will be listed in the LCS and managed as cultural resources. (See Management Policies 9:17.)

4. Codes, Regulations, and Contemporary Development

Although historic structures that functionally serve park staff or visitors are generally expected to meet modern safety, access, and energy efficiency standards, their character may impose limitations on functional modifications and adjacent development.

a. Design Compatibility

Contemporary additions or development adjacent to historic structures should be designed to complement the structures' visual and physical characteristics. Concern for the compatibility of additions extends to both the exteriors and interiors of historic structures. Special attention should be given to new construction within historic districts.

A new structure or addition will be compatible if it maintains the overall pattern of development in the area and is visually unobtrusive in terms of scale, texture, and continuity of architectural style or tradition. Scale is defined in terms of similar or harmonious proportions, especially height and width. Texture refers to the surface quality of materials, especially reflection of light. Continuity encompasses such characteristics as use of color, internal organization of space, massing, roof forms, architectural details, site relationships, palette of materials, and placement of windows and doors. Unless a new structure is a reconstruction, it should not duplicate or mimic a historic structure.

b. Accessibility

With the exception of prehistoric structures, every historic structure should be made accessible to all visitors and employees to the highest degree feasible. As a general rule, a historic structure is expected
to meet all requirements for accessible buildings outlined in section 4.1.6 of the *Uniform Federal Accessibility Standards* (UFAS; 49 FR 31528). If the Advisory Council on Historic Preservation finds that compliance with the requirements would threaten or destroy the historical integrity of a historic building, alternative requirements outlined in section 4.1.7(3) of UFAS may be followed.

Alternatives to physical access for public programs may be considered if the Advisory Council determines that measures required for access would unacceptably compromise a building's historical integrity or character. (For additional information see *Accommodation of Disabled Visitors at Historic Sites in the National Park System*, 1983.)

c. Safety and Security

Structures, their contents, and the people in and near them can be protected by a combination of use management, facilities management, and protective systems. When existing or proposed uses of structures present safety or security problems, and when solutions to such problems would unacceptably compromise their historical integrity or character, the uses should be changed or limited to eliminate or minimize the conflicts.

Passive techniques and proactive management strategies are employed wherever possible to minimize damage or loss. Particularly for Category Ia and Ib structures, installation of security, fire detection, and passive fire suppression systems is encouraged if they will not significantly impair the resource value of the structures. Other modifications, including changes to facilitate emergency egress, should be considered only when they are the only viable options and will not significantly impair the historical integrity or character of structures.

Plans for treatment of historic and prehistoric structures should also address treatment of associated hazardous materials, including lead, asbestos, and underground fuel tanks. All work involving these hazards should be undertaken in ways that will minimize loss of historic material and character. (For additional information see the *Loss Control Management Guideline* [NPS-50] and other applicable directives.)

d. Energy Conservation

Historic structures should be managed to minimize energy use, but modifications to improve energy efficiency are acceptable only if they will not adversely affect the structures' historical integrity or character. Any proposed action that would alter the temperature, relative humidity, light, or air quality in a historic structure must be evaluated to determine its potential effect on the structure and any museum objects or archival materials therein. Such actions include installation of insulation, vapor barriers, and storm windows, and changes in energy sources.

5. Administrative Issues

Plans for treatment and use of historic and prehistoric structures should be reviewed during their preparation to ensure compliance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and the additional standards in this guideline. Once approved, the plans should be used to program funds and staff time necessary for their implementation.
a. Compliance

All project plans for historic and prehistoric structures must be reviewed for compliance with Section 106 of the National Historic Preservation Act. Proposed treatment involving prehistoric and some historic structures may also require consultation with Native Americans or other associated ethnic groups. In planning undertakings involving historic structures, it is important to consider possible effects on archeological resources, cultural landscapes, museum objects, and ethnographic resources as well.

b. Funding and Staffing

Every treatment project, including preservation, is initiated by a programming document containing cost estimates and a scope of work. This information should be drawn from the Inventory and Condition Assessment Program (ICAP) or an approved HSR.

All research, planning, and treatment involving historic structures must be done by qualified persons. Staffing requirements for park cultural resource specialists should be included in the resources management plan for each park. Cooperative projects and temporary details of specialists from parks, support offices, and centers are encouraged to maximize use of existing skills and knowledge within the NPS.

c. Construction Documents

Working drawings and specifications for treatment of historic and prehistoric structures are prepared under the direction of a historical architect consistent with the Drafting for Design and Construction Guideline. In addition, construction documents will meet the following standards:

- Existing conditions are clearly documented if they are not included in an HSR or ICAP report. Provisions are made for a detailed photographic or graphic record of the treatment process.
- All aspects of the proposed treatment are consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties and the additional standards and other provisions in this guideline. Specific attention is given to use of materials, craftsmanship, design, installation of new systems, and structural reinforcement.
- Provisions are made for protection of all cultural and natural resources at the construction site. Significant material to be retained in situ is identified and methods of identification for new materials are prescribed.
- Specifications include procedures to be followed if structural problems are encountered or new features or resources are found.
- Specifications include special skills required of contractors and craftspersons.

D. Stewardship

For historic structures, stewardship focuses on five major activities: (a) control of treatment and use, (b) monitoring conditions of deterioration and structural failure, (c) protecting structures from human and environmental threats, (d) retaining or delegating responsibility for structures, and (e) developing the skills, knowledge, and attitudes needed to support the program. The last of these is addressed in
Chapter 4 as part of training. Guidance for the others follows.

1. Treatment and Use

Treatment and use of historic structures follows the conditions outlined in approved planning documents such as the general management plan, historic structure report, and ICAP work procedures.

Treatment of historic structures is divided into four categories: preservation, rehabilitation, restoration, and reconstruction. These categories parallel those used in planning for the ultimate treatment of historic structures. They are also the same as those outlined in Management Policies and the Secretary of the Interior's Standards for the Treatment of Historic Properties, commonly referred to as the Secretary's Standards.

One treatment category, preservation, encompasses four activities recognized in the 1995 Servicewide Programmatic Agreement (PA): stabilization, housekeeping, routine maintenance, and cyclic maintenance. Under stipulation IV of the PA these activities are referred to collectively as "preservation maintenance." (See Chapter 5 for additional information.)

The following standards apply to all treatments:

- Use is monitored and regulated to minimize both immediate and long-term damage.
- Use of destructive techniques, such as archeological excavation, is limited to providing sufficient information for research, interpretation, and management needs.
- All work that may affect resources is evaluated by an historical architect and other professionals, as appropriate.
- All modification, repair, or replacement of materials and features is preceded by sufficient study and recording to protect research and interpretive values.
- New work, materials, and replacement features are identified, documented, or permanently marked in an unobtrusive manner to distinguish them from original work, materials, and features. The manner and location of identification is recorded using the Inventory and Condition Assessment Program (ICAP).
- A proposed treatment project is initiated by the appropriate programming document, including a scope of work and cost estimate from an HSR or ICAP. Such projects include preservation maintenance as well as major treatment. No treatment is undertaken without an approved HSR or work procedure documenting the work, and Section 106 compliance.
- A treatment project is directed by a historical architect and performed by qualified technicians.
- Representative features salvaged from a historic structure are accessioned and cataloged, provided that they fall within the park's scope of collection statement.
- All changes made during treatment are graphically documented with drawings and photographs. Records of treatment are managed as archival materials by a curator or archivist within the park's museum collection.

a. Preservation

Preservation maintains the existing integrity and character of a historic structure by arresting or retarding deterioration caused by natural forces and normal use. It includes both maintenance and stabilization.
Maintenance is a systematic activity mitigating wear and deterioration of a structure by protecting its condition. Stabilization involves reestablishing the stability of an unsafe, damaged, or deteriorating structure while maintaining its existing character. The following standards based on the Secretary of the Interior's Standards for the Treatment of Historic Properties apply:

- A historic structure is used as it was historically, or is given a new or adaptive use that maximizes the retention of historic materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a structure is protected and, if necessary, stabilized until additional work may be undertaken. Adaptive use of prehistoric structures is prohibited.
- The historic character of a historic structure is retained and preserved. The replacement or removal of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a structure is avoided.
- Each historic structure is recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve historic materials and features is physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
- Changes to a historic structure that have acquired historical significance in their own right are retained and preserved.
- Historic materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a historic structure are preserved.
- The existing condition of historic features is evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a historic feature, the new work matches the old in design, color, texture, and where possible, materials. Repair or replacement of features is substantiated by archeological, documentary, or physical evidence.
- Chemical or physical treatments that cause damage to historic materials are not used.
- Archeological and landscape resources are protected and preserved in place. If such resources must be disturbed, mitigation measures are undertaken including recovery, curation, and documentation.

The following additional standards apply:

- Stabilization detracts as little as possible from a historic structure's appearance and significance. Reinforcement is concealed wherever possible so as not to intrude upon or detract from the aesthetic, historical, or archeological quality of the structure, except where concealment would result in the alteration or destruction of historically or archeologically significant features, materials, or physical or visual relationships. Accurate documentation of stabilization procedures is kept and made available for future needs.
- Maintenance is executed by qualified technicians in accordance with approved work procedures. Where such procedures are nonexistent or incomplete, a historical architect provides technical guidance.
- All features of a historic structure are inspected on a scheduled basis and information about their condition is entered into ICAP.

b. Rehabilitation

Rehabilitation improves the utility or function of a historic structure, through repair or alteration, to make
possible a compatible contemporary use while preserving those portions or features that are important in defining its significance. Leased historic structures rehabilitated consistent with the Secretary of the Interior’s Standards for Rehabilitation may be eligible for preservation tax credits. The following standards based on the Secretary’s Standards apply:

- A historic structure is used as it was historically or is given a new or adaptive use that maximizes the retention of historic materials, features, spaces, and spatial relationships. Adaptive use of prehistoric structures is prohibited.
- The historic character of a historic structure is retained and preserved. The replacement or removal of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a structure is avoided.
- Each historic structure is recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features from other structures, are not undertaken. Work needed to stabilize, consolidate, and conserve historic materials and features is physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
- Changes to a historic structure that have acquired historical significance in their own right are retained and preserved.
- Historic materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a historic structure are preserved.
- Deteriorated historic features are repaired rather than replaced. Where the severity of deterioration requires repair or replacement of a historic feature, the new feature matches the old in design, color, texture, and, where possible, materials. Repair or replacement of missing features is substantiated by archeological, documentary, or physical evidence.
- Chemical or physical treatments that cause damage to historic materials are not used.
- Archeological and landscape resources are protected and preserved in place. If such resources must be disturbed, mitigation measures are undertaken including recovery, curation, and documentation.
- Additions, alterations, or related new construction do not destroy historic materials, features, and spatial relationships that characterize the historic structure. New work is differentiated from the old and is compatible with the historic materials, features, size, scale and proportion, and massing of the structure.
- Additions and adjacent or related new construction are undertaken in such a manner that if removed in the future, the essential form and integrity of the historic structure would be unimpaired.

c. Restoration

Restoration accurately presents the form, features, and character of a historic structure as it appeared at a specific period. It may involve the replication of missing historic features and removal of later features, some having cultural value in themselves. The following standards based on the Secretary of the Interior’s Standards for the Treatment of Historic Properties apply:

- A historic structure is used as it was historically or given a new or adaptive use that interprets the structure and its restoration period. Adaptive use of prehistoric structures is prohibited.
- Materials and features from the restoration period are retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period is
Each historic structure is recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features from other structures, are not undertaken. Work needed to stabilize, consolidate, and conserve materials and features from the restoration period is physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

Materials, features, finishes, spaces, and spatial relationships that characterize other historic periods are documented prior to their alteration or removal.

Historic materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period are preserved.

Deteriorated features from the restoration period are repaired rather than replaced. Where the severity of deterioration requires replacement of a historic feature, the new feature matches the old in design, color, texture and, where possible, materials.

Replacement of missing features from the restoration period is substantiated by archeological, documentary, or physical evidence. A false sense of history is not created by adding conjectural features or features from other structures, or by combining features that never existed together historically.

Chemical or physical treatments that cause damage to historic materials are not used.

Archeological and landscape resources are protected and preserved in place. If such resources must be disturbed, mitigation measures are undertaken including recovery, curation, and documentation.

Designs that were never executed historically are not constructed.

The following additional standards apply:

- Archeological, documentary, or physical evidence is sufficient to permit accurate restoration with minimal conjecture.
- Restoration is essential to public understanding of the cultural associations of a park.
- Reinforcements required for stability of existing support systems and protective or code-required features (HVAC, electrical, security, fire protection, handicapped accessibility, etc.) are concealed whenever possible so as not to intrude upon or detract from a historic structure's aesthetic and historical qualities, except where concealment would result in the alteration or destruction of historically significant features, materials, or physical or visual relationships.

Reconstruction

Reconstruction entails reproducing the form, features, and character of a non-surviving historic structure, or any part thereof, as it appeared at a specific time and place. Reconstruction of an entire structure is always a last-resort measure for addressing a management objective and will be undertaken only upon specific written approval of the director after policy review in the Washington office. The following standards based on the Secretary of the Interior's Standards for the Treatment of Historic Properties apply:

- Archeological, documentary, or physical evidence is available to permit accurate reconstruction with minimal conjecture, and such reconstruction is essential to public understanding of the cultural associations of a park established for that purpose.
- Reconstruction of a historic structure in its historic location is preceded by a thorough
archaeological investigation to identify and evaluate those features and artifacts which are essential to an accurate reconstruction. Mitigation measures are undertaken including recovery, curation, and documentation.

- Reconstruction includes measures to preserve any remaining historic material, features, and spatial relationships.
- Reconstruction is based on the accurate duplication of historic features substantiated by archaeological, documentary, or physical evidence, rather than on conjectural designs or the availability of different features from other structures. A reconstructed historic structure re-creates the appearance of the non-surviving structure in design, color, texture, and, where possible, materials.
- A reconstruction is clearly identified as a contemporary re-creation.
- Designs that were never executed historically are not constructed.

The following additional standards apply:

- The reconstructed historic structure is full-scale and on the original site.
- The reconstruction does not simulate a damaged or ruined historic structure or constitute a general representation of a "typical" structure.

2. Monitoring and Inspections

Planning for maintenance of historic structures requires information about the nature and condition of their features. These data are collected on a systematic basis using the procedures outlined in the Inventory and Condition Assessment Program (ICAP). Major components of ICAP include the scheduled and major assessments modules that upload information into the Maintenance Management (MM) program to generate work requests. ICAP work procedures are contained in the Historic Property Preservation Database (HPPD) and are compatible with the MM program. ICAP interfaces electronically with the List of Classified Structures (LCS) and the Cultural Resources Management Bibliography (CRBIB).

As an integrated database with a growing capacity to coordinate information between maintenance and resource management, ICAP should be promptly implemented in all parks. All major assessments of historic structures should be based on ICAP, and reports of work done to historic structures should be recorded in ICAP.

(For additional information see the ICAP Reference Manual and Computer User Manual.)

3. Protection

Special attention must be paid to protection of historic structures from threats caused by use and environmental forces. Such threats include vandalism, smoking, storage of flammable materials and explosives, and vehicular and airplane traffic. Solutions include road patrols, restrictions on smoking and storage of flammables (as required in certain cases by Management Policies), proper collection and disposal of trash, housekeeping, routine and cyclic maintenance, installation of fire detection and suppression systems, limitations on or removal of traffic, and periodic inspections.
4. Partnerships

Not all historic structures in parks are or can be managed directly by the NPS. Several alternatives are available and deserve consideration, particularly when treatment or use cannot be supported by the NPS.

a. Leasing

Leasing historic property under Section 111 of the National Historic Preservation Act (P.L. 96-515) provides both resource protection and revenue that may be used to defray costs associated with either a specific leased property or any other National Register property under NPS jurisdiction. As prescribed in Management Policies, a lease must ensure preservation of the property and must not unduly limit its appreciation by the public, interfere with visitor use and enjoyment of the park, or preclude use of the property for other management purposes judged more appropriate or cost-effective. The regulations governing leasing of historic properties under this authority are contained in 36 CFR 18. (For further information see Director's Order 27, "Historic Property Leases and Exchanges.")

Except within national parks, national monuments of scientific significance, and properties that were always federally owned, leasing of real property including historic property can also be undertaken under P.L. 90-401 and 36 CFR 17 in situations where resource protection would be enhanced. However, the rental income cannot be retained.

b. Special Use Permits

Special use permits allow use of historic structures for short periods. They can be canceled at any time. They should not be used as substitutes for leases under P.L. 96-515 or P.L. 90-401.

c. Cooperative Agreements

Under P.L. 104-208, the NPS may "enter into cooperative agreements that involve the transfer of National Park Service appropriated funds to State, local, and tribal governments, other public entities, educational institutions, and private nonprofit organizations for the public purpose of carrying out National Park Service programs." On the premise that resource preservation is a park program in support of a public purpose, this authority has been interpreted to mean that the NPS can allow the mentioned entities to rehabilitate and use park historic structures.

d. Concession Agreements

The Concession Management Act (P.L. 89-249) authorizes the secretary of the interior to contract for accommodations, facilities, and services necessary for public use and park enjoyment. Such agreements can permit concessioner use of historic structures.

Concessioner-occupied historic structures in which the NPS has a legally enforceable property interest will be managed in accordance with Chapter 5 of Management Policies and with all applicable standards in this guideline. Specific standards for concessioner-managed historic structures follow:
- All historic structures are inventoried, evaluated, and nominated to the National Register.
- Additions or alterations to historic structures and new facilities adjacent to them are contextually compatible.
- A structure's interior finishes, features, and fixtures are evaluated and managed in accordance with their contribution to its significance.
- NPS-owned furnishings are evaluated for both integrity and associations and if consistent with the park's scope of collection statement are managed as museum objects.
- Concession agreements include provisions outlining responsibility for preservation maintenance and rehabilitation as well as research, planning, and other appropriate treatments.
- Fire suppression and security systems required for public and structural safety are designed to be as unobtrusive as possible and are located to minimize adverse effects on the historic structure while meeting applicable codes.
- Additions and alterations for accessibility are designed and located to be as unobtrusive as possible and to minimize adverse effects on the historic structure while meeting applicable regulations.

All proposals for concession projects that might affect historic structures, whether initiated by concessioners or the NPS, will be submitted to cultural resource specialists and concessions management specialists for review.

e. Conveyance

Except within national parks, national monuments of scientific significance, and properties that were always federally owned, Public Law 90-401 of July 15, 1968, allows the conveyance of a freehold interest in park real property, including historic property, with appropriate easements in situations where resource protection would be enhanced. (See 36 CFR 17.)

**CHECKLIST FOR MANAGEMENT OF HISTORIC AND PREHISTORIC STRUCTURES**

**RESEARCH:**

- All structures eligible for the National Register of Historic Places have been identified and nominated.
- All historic structures are in the List of Classified Structures and entries are complete and current.
- Documentary research and physical examination are sufficient to support treatment.
- Work procedures and major assessments are complete in an ICAP format.
- All historic structures have been recorded to levels commensurate with their significance and mandated purposes.
- Material samples, field notes, photographs, and construction files composing the resource information base are properly organized and placed in the park museum collection.
- All professional reports and publications are entered in the Cultural Resources Management Bibliography.

**PLANNING:**
All historic structures are appropriately addressed in the park's general management plan, development concept plan(s), and interpretive prospectus with respect to their significance, purposes or uses, and research bases.

- Plans and specifications for all preservation, rehabilitation, restoration, and reconstruction work are prepared by a historical architect.
- Work assignments for preservation maintenance are assigned priority based on the relative significance of assets and the relative seriousness of their condition.
- Required consultation and legal compliance is carried out before any work is initiated, and the concerns of consultants are taken into account in decision-making.

**STEWARDSHIP:**

- All work is done by qualified people in conformance with approved plans and specifications or work procedures.
- All historic structures are inspected at least annually in an ICAP format.
- All maintenance personnel who work in, on, or around historic structures are given appropriate training.
- The entire park staff is made aware of the significance of all historic structures and the major threats to them.
- All ground disturbance around historic structures is cleared or monitored by an archeologist.
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