Preserving the Nineteenth Century: Challenges and Possibilities

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I am deeply honored by your invitation to lead a discussion on the fundamental issues involved in collaborating to preserve nineteenth-century source materials. Collaboration brings us here today. Collaboration also brought me to a Library of Congress-sponsored symposium nearly ten years ago on the development of statewide preservation programs. The highlight of that conference was the opportunity to fall under the spell of Vartan Gregorian, then president of the New York Public Library. He told the story of how he successfully enlisted the city's literary elite in the cause of preservation. He told how he shamelessly appealed to the politician's desire for immortality by pointing out that “the only institutions on earth for 5,000 years that have provided earthly immortality are the libraries and archives.” But then, he paused and spoke movingly of how our shared mission transcends status or stature:

All of us are in the same boat. When the boat sinks no one can claim the fact that they had a first class ticket as solace. We cannot afford parochialism or self-

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ishness any more, because what is disappearing is our common heritage, our common culture. We have to collaborate. It is not possession, but access to that possession that is important.

In the late 1970s and through the following decade, appeals to the fundamental connection between preservation action and the protection of democratic ideals got results. Public appeals focused the political debate on preservation, established a funding base for large-scale collaborative microfilming programs, and provided an essential justification for resource reallocation within nearly every research library and archival repository in the country. Words like Vartan Gregorian's still resonate for those of us who labor daily to shape preservation programs.

During these same decades, some have dissented from the view that preservation and conservation should top the agendas of cultural organizations. In his incoming presidential address to the Society of American Archivists in 1979, Maynard Brichford questioned the value of investing in the conservation of special collections, given the sheer magnitude of the task and the vanity of assuming that we can save much of any of it over the long run. "Let it rot," he told the assembled archivists. "Documents that need the conservator's attention, if they are to be preserved for posterity, may not be worth the cost of conservation." In his ultimate focus on selectivity and intensive use, Brichford dismissed any notion of long-term preservation. "As the clock runs on the physical condition of records, it should also run on their research availability. Increasingly, we will look on archival custody as a limited-term activity—a stewardship over documentation held for specific periods for research use." This view may be more widely held today than we are willing to admit.

Between the "politically incorrect" view of Mr. Brichford and the lofty aspirations of Mr. Gregorian lie the shifting sands of national agendas and local priorities. This plenary address is not an attempt to reclaim the moral high ground for preservation by revisiting the philosophy of preservation that proved so successful in years past. That high ground still exists, but we are now playing on a different field—a field dominated by practitioners of cost-benefit analysis. Nor is my purpose to describe the roller-coaster history of cooperation and collaboration among librarians, archivists, preservation professionals, and communities of scholars—a history that evidently extends to the formation of these professions in the late nineteenth century. Instead, I wish to speculate about acting collectively, collaboratively, and realistically on behalf of preserving the "stuff" of the nineteenth century. I will focus on three closely interrelated issues: first, the special character of the nineteenth century; second, the comprehensiveness of preservation selection; and third, the roles we play in preservation action at the local level.

**Nineteenth-Century Evidence**

The best point of departure is the nature of nineteenth-century evidence. For after all, it is by means of evidence that the reader and scholar seeks to address questions of nearly infinite variety. And it is evidence in nearly infinite variety that we seek to preserve. The question is: From a preservation perspective, what makes the nineteenth century distinctive in comparison to preceding and successive centuries? Answering this question is first and foremost the job of historians. That being said, here are three statements about the century that help to define the environment of collaboration. These statements are: "It's over," "The evidence is in," and "It's accessible." Let's take a look at each in turn.
It's Over

Please pardon a bit of facetiousness, but it should not surprise you to learn that the nineteenth century is over. What we understand by the concept of the past is endlessly interesting in its complexity. Shakespeare’s declaration, “What’s past is prologue,” is carved into the entrance of the National Archives. Our sense of continuum of experience is certainly important for purposes of writing, reading, and learning history; this first facet of the nineteenth century—its “pastness”—sets the boundary around the administrative and intellectual challenges that we face in preserving the nineteenth century.

This boundary can be viewed in two ways. First, the scope of the preservation challenge is finite—overwhelming to some—but finite nonetheless. “Pastness” lends a certain knowability and doability to collaboration that is not always evident in dealing with contemporary collection development and management. Second, although preserving the nineteenth century is a fundamental extension of our larger job of managing the resources that we choose to acquire and own, collaboration on the preservation of the nineteenth century can, on an intellectual level, exist blissfully engaged from the worlds of resource sharing, electronic records management, licensing consortia, the changing nature of scholarly communication, and other vital issues that consume the energies of administrators.

The Evidence Is In (Mostly)

One of the principal reasons it is feasible to think about a comprehensive and collaborative preservation strategy for the nineteenth century is that most of the tangible evidence of the era is held somewhere by an organization (archive, library, historical society, museum) that accepts some level of responsibility for its care. Having said this, here are two quick qualifications. First, the fact that archival materials or books are collected does not necessarily mean that they are available or accessible in any way to anyone, much less to readers. Second, the fact that a collection is housed does not mean that is housed in a way that protects it from the ravages of excessive heat and humidity, from bugs, from mold, from floods, and from theft or abuse. The responsibility to collect carries with it the responsibility to protect and secure. Any other view is irresponsible.

The claim that “the evidence is mostly in” is not really intended as a rally-cry for preservation environments but, rather, as an argument. In the domain of the nineteenth century, the environment of collaboration has shifted (as it already has for previous centuries) from collecting the evidence of scholarship and human activity to assigning value to what we already own or to what we wish to own. In preservation, all decisions turn on value judgments. No amount of technical understanding about the causes of deterioration or the options for addressing this deterioration can mitigate the challenge of choice. We must choose first between no action and any action at all and then take the right course of treatment. As we will see later, the challenge for collaborative preservation is to share responsibility in an environment in which mutual respect is noticeably absent. For the past decade, we have concentrated our energies—appropriately—on building a critical mass of purposeful activity rather than on rigorously collaborative selection. The net result is a random assemblage of preserved evidence in documentary form with much critical nineteenth-century material culture left untouched.

It's Accessible

The third fact about the nineteenth century that influences the environment of collaboration is its accessibility. For anyone who cares, a large part of the past century is directly available
through oral tradition or documentary evidence handed down through families. The nineteenth century is not “mysterious” like the eras of the Roman emperors, the Mayans, ancient African kingdoms, the dynasties of China, or even colonial America. The nineteenth century, for many people, is not so much different from our present time; much of it is still within the reach of nostalgia and romance. As a consequence, many, many people have a stake in the evidence generated from activities in the nineteenth century. Think for a minute about what it means for preservation decision making that millions of people pursue genealogical research each year; that tens of thousands of people build their vacations around reenactments of Civil War battles; that virtually every Jane Austen novel is a blockbuster movie; and that a significant part of the built environment from 125 or more years ago is still standing. The nineteenth century, in substance as well as in kind, belongs to our market economy.

The existence of many stakeholders leads to a world of competing interests and divergent value judgments. It has been comparatively easy to manage the conservation of artifacts from previous centuries because very few people really care about most of them. The natural (and sometimes obstructive) selfishness that often accompanies high-end academic scholarship may be magnified thousands of times over in approaching the preservation of an accessible century.

**Influences on Preservation Decision Making**

But this is only half of the background on collaboration for preservation. We haven’t even mentioned the “stuff” of the nineteenth century itself. Let’s look at the three principal characteristics of the material culture we seek to preserve that influence preservation decision making. They are: mass, fragile media, and the visual revolution.

**Mass**

The most obvious characteristic of nineteenth-century collections is their size in comparison to collections of books, archives, or manuscripts from earlier centuries. A number of factors have converged to create the mass of evidence that confronts us today. We all know about the publishing revolution that resulted from the handy convergence of supply and demand—supply being the mass production of paper, printing press advances, and machine binding—demand driven by an increasingly literate populace.10 As the century progressed, new methods of duplication beyond the printing press and new methods of writing beyond the quill contributed equally to the explosion of archives, manuscripts, and personal papers.

With the ability to produce comes the desire to keep. The importance of documentation to the creation of the modern market economy is well understood. Recently, Geoffrey Batchen examined the social preconditions necessary for photography to be invented. Among his many fascinating insights is the crucial importance of the “desire for permanence” that took root in the early nineteenth century.11 Clearly, we require an explanation far deeper than mere accumulation if we are going to make sense out of the patterns of survival of nineteenth-century evidence.

One thing has become clear to all involved in the preservation of nineteenth-century materials: individuality exists among the masses. The Modern Language Association’s “Statement on the Significance of Primary Records” is clear about this issue for the published record. “All objects purporting to present the same text—whether finished manuscripts, first editions, later printings, or photocopies—are separate records with their own characteristics; they all carry different information, even if the words and punctuation are indeed identical, since each one reflects a different historical moment.”12
It is important to recognize that individuality is not necessarily rarity; and rarity—not individuality—forms but one part of a complicated assessment of value. This fact has been true for centuries and has driven the rare book and manuscript market for decades. The preservation of individuality is absolute and requires, by definition, the preservation of everything. The recognition of rarity, however, requires judgment and provides for the possibility that its definition can and will evolve over time.

**Fragile Media**

If the mass of evidence was the only challenge we faced, we would probably not be here today talking about how to preserve the nineteenth century. The real challenge is self-destructing organic media such as paper, film, and photographs. The problem of embrittled paper is especially real. The acid hydrolysis of cellulose lends a distinctive odor to libraries that have strong nineteenth-century collections. The paper problem spans nearly the entire century and extends well into the twentieth, encompassing at least a 150-year period. Book publishers in the nineteenth century knew there was a problem, but not the cause. Newspaper publishers complained bitterly in the late nineteenth century about the poor quality of their paper stock. It took more than a hundred years—until the mid 1960s—to diagnose the cause with a sufficient level of scientific rigor, to communicate these findings in ways that could guarantee change, and to marshal the political expertise to address the future of paper quality as well as face the problems of the past century.

There is good news in the dismal reality of brittle books. Preservation specialists have come to understand the somewhat perverse truth that even severely brittle books, periodicals, archives, manuscripts, and newspapers (those that cannot withstand a single MIT fold endurance test) will maintain their physical integrity if they are not used. Knowing the crucial role that physical handling plays in shortening the life expectancy of endangered materials, however, eases the crisis mentality that has pervaded preservation for four decades and greatly enriches our selection methodologies.

**Visual Revolution**

The final piece of the puzzle that forms the foundation for collaborative selection is the visual revolution. The first photograph was fixed in 1839. Microphotography—the precursor of microfilm—was invented nearly simultaneously, because it took no time to figure out that a microscope could function in the same way as a lens. Printing technology blossomed after the Civil War. By the end of the century, Thomas Edison had established the foundation for the motion picture industry and George Eastman had conceived of the camera as appliance. In between was a social, artistic, and technological revolution like nothing since Gutenberg. The products of this revolution populate libraries, archives, and museums worldwide. The complexity of nineteenth-century photography and the sophistication of nineteenth-century printing technology present unique preservation challenges—distinctive, serious, and possibly intratable, yet surprisingly similar to the challenge of brittle books.

The preservation challenges of the nineteenth century could be worse. We do not have to deal with even greater masses of material that characterize twentieth-century collections. By and large, the nineteenth century is a black-and-white world. We do not much concern with the challenges of preserving the color in printed materials, film and photographs, cartographic records, color xerography, and other ways of representing our lives more “realistically.” Finally, much of the evidence from the nineteenth century is “machine independent” and eye readable, sparing us the need to maintain complex access systems.
The Landscape of Collaboration

Against this backdrop of the distinctiveness of nineteenth-century evidence, questions about the preservation options emerge. How can collaborative preservation activities encompass the universe of collected evidence represented in the nineteenth-century cultural record?

Figure 1 portrays a framework for approaching collaborative selection for preservation. The figure establishes a decision landscape in which preservation action is informed through the collaborative balancing of key decision criteria. Five criteria comprise the basic set of issues that preservation managers have been working with for decades. They include physical condition of items or aggregates, value, scale of action, use (frequency, quality, and intensity), and consequences (impact) of action in terms of extension of useful life.

The horizontal axis represents the proportion of a given body of evidence that will be preserved (either accidentally or purposefully). The definition of preservation in this sense is “significant extension of useful life expectancy” beyond what would result if no action were taken. The range from “all” to “none” provides for variable scales of action. “All” could mean the entire corpus, an entire discipline, the contents of a library or archive, a collection, or even a group of discrete items. The continuum defines the consequences of preservation decisions at a given scale. Finally, the axis provides a sliding scale to weight the concept of “value” as applied to a body of material.

The vertical axis represents the locus of preservation action, ranging from item to mass level. The axis is a continuum of manual intervention, ranging from “complete” at the item level to “none” at the mass level. The scale defines the extent to which decisions are made collectively or individually. It is a sliding scale to weight the importance of use in the decision-making process, ranging from crucial importance at the item level to unimportant at the mass level. The axis also suggests a continuum of physical condition on individual items or collections.

Together, the two axes create a decision landscape containing four quadrants in which preservation action could occur. The point where the vertical and horizontal axes cross could be viewed as the ideal compromise among the four options represented at the extreme of each axis. Embedded in the framework are essential definitions that place the suite of preservation options in a policy landscape. (See figure 2.) This landscape has the potential to identify both the forces for convergence and the forces of contention that provide the push-pull of collaboration. At the heart of the framework is the ideal of collaborative action.

The quadrant marked A represents one end of a continuum of cost efficiency. At its extreme, the net result is augmenting the life expectancy of the greatest amount of material with the least intervention at the lowest possible cost. Point A also represents the end of a continuum in which handling is restricted and access is problematic, at best. In this quadrant is located environmentally sophisticated shelving as a preservation op-
Off-campus shelving is a very promising trend—born of necessity—that effectively neutralizes the argument that we can't possibly save everything. On-campus libraries and archives are full to bursting, and the cost of new full-service construction is generally prohibitive. Off-campus shelving carries with it a compelling economic model coupled with convincing materials science. We certainly may be able to shelve the nineteenth century off campus if we are willing to invest in access services and pay the price of limited browseability. It is a choice.

The trend in quadrant A is toward compromise between dramatically increased life expectancy and serendipity. The source of compromise is intelligent decision making about the location of nineteenth-century materials in remote and campus facilities or, alternatively, in convenient versus inconvenient or non-browsable locations. The compromise is necessarily of local concern. The opportunity for multi-institutional collaboration is in the sharing of costs and in accepting the risks of building and operating remote shelving facilities.

The quadrant marked B represents a different continuum of cost. At its extreme, the net result is benign neglect in which virtually no action is taken at the item level, very few resources are invested in preservation, and decision making is random and unsystematic when it does occur. Point B is the ultimate manifestation of the “Let it rot” school of preservation and turns the decision maker into a Darwinian. In this quadrant is located mass deacidification, a low-cost/low-intervention preservation option with only marginal application to nineteenth-century materials. The fundamental fact that mass deacidification only neutralizes the acid in paper without strengthening paper fibers restricts its application to nonbrittle collections that are highly acidic in character. Recent refinements in the mechanization of paper-splitting technology (which dramatically improves the strength of embrittled papers) and the possibility that this technology may become readily available in the United States are promising developments that improve the potential for large-scale mass treatment of nineteenth-century newspapers, manuscripts, and other embrittled resources that would benefit from retention in their original formats.

In quadrant B is the potential competition between preservation action of any kind and other library/archives initiatives that support teaching and learning, most especially digital technology projects and programs. At the end of the twentieth century, new agendas dominate our discussions about our past and our future. The timeless value of preservation has become merely a passing fad, or so it may seem from the hindsight of only a decade or so. Librarians and archivists fear that the pursuit of the World Wide Web is a zero-sum game that will inevitably drain precious resources from hard-won preservation programs. The vital collaborative opportunity here is to
keep preservation action on our collective agendas. This is the important conclusion of Gerald W. George's recent examination of the "difficult choices" faced by the scholarly committees that examined selection for preservation with the support of the Commission on Preservation and Access.

Quadrant C represents the other end of the fundamental cost-effectiveness continuum. At its extreme, the net result is that the few items that survive do so because intensive intervention at the item level has created or enhanced long-term stability and durability. Point C also could be viewed as the net result of a vigorous weeding or de-selection process in which preservation works by default. Preservation resources are hoarded for shrinking collections of increasing value. In this quadrant are two possible conservation treatment strategies: item-level conservation treatment of rare artifacts and batch-process treatment of circulating or high-use materials.

Here, there is a clear choice to be made between conserving artifactual value and keeping materials in the hands of readers. The types of artifactual value of particular interest for us today are the characteristics of the published record needed by scholars of the book and by scholars studying the relationship between artifacts and the reader. The trend in libraries today clearly favors collections care—holdings maintenance in the parlance of archives—over conservation treatments. The collaborative tension between scholars of the artifact and preservation programs arises because any treatment action designed to extend useful life inevitably alters the item. It is a rare nineteenth-century item indeed that retains its pristine original character. All organic materials decay—deterioration rather than stability is the natural state of affairs.

Quadrant D represents the most complex set of choices. At its extreme, the net result is that, eventually, the life expectancy of all evidence from the nineteenth century is extended through sensitive, item-by-item decision making. Point D could be viewed as the worst nightmare of the Modern Language Association, in which the interests of cost-effectiveness leads to the transformation of the entire corpus of the nineteenth century with the complete loss of artifactual value in the process. Into this quadrant goes the suite of accepted, standardized reformatting technologies, including preservation microfilming, microfiche, and preservation photocopying. This is also the quadrant where many feel that digital technologies bear upon the preservation mandate.

In quadrant D is the competition between words and images that arises every time a decision needs to be made to reformat a primary source document for any reason. This is the source of collaborative tension between scholars whose work requires the evidence of original artifacts and preservation librarians who often see no alternative to microfilm or preservation photocopying. The potential for successful collaboration derives from three opportunities: first, the development of rule-based reformatting decisions; second, increased efforts to address the randomness that is the central quality of a use-driven preservation program; and third, programs that loosen the structures against redundant treatments. This third area is made particularly complex by the dual pressures of cost efficiency at home and rules governing federal funding for preservation.

Role Differentiation

Scholars, librarians, and preservation specialists have different roles to play in collaborative decision making.

- The reader-scholar brings wisdom on the best balance among competing preservation priorities, clarity on the macro-criteria for establishing specific decision processes, and support for the preservation enterprise as a whole. Scholars should
not necessarily engage themselves in the decisions that need to be made on individual items.

- The librarian or archivist who engages in preservation decision making is not a proxy for the scholar. Those who build and manage collections supply the bibliographic and material context that informs the emphasis that an institution places on various parts of the collaborative landscape.

- Preservation is not merely a technical subspecialty of librarianship or a watered-down version of the conservation profession. Preservation experts expand the options for preservation action, manage scarce resources cost-effectively, and focus preservation energy in cultural institutions.

Preservation experts might be tempted to say that their role is to declare: "Leave us alone to do our work and everything will be fine." But it won’t be fine. Collaboration among preservation specialists, collection builders, and scholars is crucial to the maintenance of the preservation enterprise as a top programmatic priority.

It is relatively easy to identify appropriate collaborative roles. Why are these roles so difficult to accomplish or maintain? From my perspective as a scholar, archivist, librarian, and manager, there appear to be four behaviors or attitudes that sometimes obstruct progress.

- The isolation of scholarship in primary sources. Engagement with primary sources is a solitary affair. Each research question is unique, by definition, and requires a unique combination of sources to be addressed. Isolation works so strongly against collaboration because the former thrives on the truth of the particular while collaboration depends on the relative nature of compromise.

- The fear of forecasting future uses/value. Archivists have yet to recover from the criticism they endured twenty-five years ago from historians who wanted to understand society from the bottom up but found archival resources organized and described from the top down or not collected at all. Archivists committed to large-scale preservation must find the courage of their convictions and risk the error that comes with decision making.

- The master/servant trap. Libraries and archives are a service for readers, right? Well, the first definition of service in the Oxford English Dictionary is "The condition of being a servant; the fact of serving a master." Collaboration suffers in an environment of unequal power, mutual suspicion, and competing self-interests. A genuine service ethic fulfills its promise only when it is richly informed by the habits of scholarship.

- The forest and the trees syndrome. Those of us whose daily work revolves around the handling of individual items—a state of life common to all professionals engaged in the technical services—are easily disconnected. A deep understanding of research uses and collection context is vital to the success of the preservation process and can be obtained most effectively through the communication that is at the heart of collaboration.

Where do digital imaging technologies fit into this landscape of collaboration? I have reserved selection for digital image conversion for its nexus. It is my contention that the point where the two axes cross is where selection for the digital library resides. On one level, digital imaging is the solid domain of preservation reformatting. Most of the pilot projects that have taken place in libraries and archives have sought to explore the feasibility of using the technology to create high-quality reproductions of research materials. In the past decade, we learned much about quality and all but established the technical criteria required to obtain results that meet or exceed the quality of reproductions made through photographic means. The digital imaging process is remarkably similar to the photographic process. The net result is readable and intelligible, much as any other reproduction.
Though the process is familiar, the product is not. Digital imaging is not copying—not reproduction—but something new and fundamentally different from the original source. Imaging transforms the very concept of format, rather than creating an accurate picture of a book, document, photograph, or map on a different medium. The power of digital enhancement, the possibilities for structured indexes, and the mathematics of compression and network communication together alter the concept of preservation. "The digital world transforms traditional preservation concepts from protecting the physical integrity of the object to specifying the creation and maintenance of the object whose intellectual integrity is its primary characteristic."23

This last statement is the source of my enthusiasm and optimism that digital technologies can work a revolution on collaboration among scholars, librarians, and preservation specialists. To do so, we have to add a sixth key criterion to the five already outlined in our selection landscape. This sixth criterion is intellectual cohesion of the resulting digital product. It is not the place of this presentation today to argue the case for cohesion. I do need to say, however, that this criterion is at the heart of a digital product worth preserving—worth preserving because it will be used. The future of digital preservation must start with this premise. The promise of wise selection for digital image conversion is that—together—we can create products for scholarship whose whole is different and better than the sum of its parts and whose cost to the collaborators is a fraction of the cost of creating the products alone.

I would like to leave you with one final thought to ease your minds about the complexity of the collaborative landscape. With apologies to Bobby McFerrin: "Don't worry, be happy; we have time."

Notes

10. Michael Winship, American Literary Publishing in the Mid-