Library Trends, a quarterly thematic journal, focuses on current trends in all areas of library practice. Each issue addresses a single theme in depth, exploring topics of interest primarily to practicing librarians and information scientists and secondarily to educators and students.

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Preserving Cultural Heritage: Introduction

MICHÈLE V. CLOONAN AND ROSS HARVEY

When *Library Trends* devoted its first issue to preservation (Tauber, 1956), the state-of-the-art term was *conservation*, and the articles dealt with binding, treatments, stack maintenance, and “discarding” (weeding). The focus was almost entirely on libraries, except for an article by Hummel and Barrow on treatment for library and archival material (Hummel & Barrow, 1956). The next *Library Trends* issue devoted to preservation was published twenty-five years later (Lundeen, 1981), and although *conservation* was still the preferred term, the range of topics was broader. To binding and treatment were added new areas: administration, education, paper chemistry, disaster preparedness and prevention, microforms, and the conservation and preservation of sound recording and photographic collections. The focus was still squarely on libraries, with little mention of archives. This 1981 issue does, however, show the first signs of an interest in international collaboration and some cross-fertilization of ideas in Buchanan’s article on disaster prevention (Buchanan, 1981).

In the last twenty-five years, “preservation” scholarship has evolved to a dual pursuit: the idea that we need to *preserve* and the theoretical issues concerning preservation—what to save, how to save it, and how such decisions are made. Also, preservation is now equated with history and memory, thus cultural heritage preservation is currently a subject of considerable interest to a wide range of stakeholders. It is increasingly being perceived that the issues of the archives, library, art, and historic preservation fields have much in common, certainly more than was apparent in the past, and each field can learn from the others. Some of these issues emerge from the attempt to define from varying perspectives the concepts of cultural property ownership that were developed in colonial times; from the expropriation of cultural heritage for political and ideological aims; from changing understandings about intellectual property rights in an
increasingly globalized environment; and from the changing techniques now available to cultural heritage preservation, most notably the impacts of digital culture. Even our vocabulary has shifted; until relatively recently we used the term *cultural patrimony*, itself an artifact of colonialist thinking. We are also questioning more closely than ever before the reasons we should preserve cultural heritage, what it is that we are trying to preserve, and what value society places on preservation, issues explored in Abby Smith’s paper. Heather MacNeil and Bonnie Mak use lessons from the archives field to describe precisely the concept of *authenticity* and articulate its importance to current preservation activities, especially in a digital context. Annemaree Lloyd explores *significance*, a concept that originates in historic preservation (also referred to as the built heritage field) and is increasingly being applied to other fields. Anna Catalani provides a perspective on *authenticity* from the museum field. Paul Eggert draws comparisons between textual editors and conservators to throw light on concepts of the work that assist preservation thinking.

The ongoing challenge to protecting collections from civil unrest and natural disasters also brings cultural heritage institutions together. Michèle Cloonan considers an expanded definition of preservation, noting how the “custodial storehouse” model is disrupted and assumptions about preservation challenged in periods and at points of stress. András Riedlmayer examines how preservation is redefined in times of war or under regimes where books and other records are intentionally destroyed.

The basis of cultural heritage preservation is a desire to save the past while making the past accessible and usable. With the exception of a small number of “iconic” objects, such as the *Domesday Book*, *The Book of Kells*, or the American *Declaration of Independence*, which only under extraordinary circumstances can be handled, preservationists seek to make original items available to users. (Special collections departments and museums might urge patrons to use surrogates first, to cut down on wear and tear to fragile originals.) In historic preservation, which focuses primarily on the built environment, structures are often lived-in multi-use spaces.

In addition to the preservation of physical objects, we must preserve digital information. Deborah Woodyard-Robinson (Woodyard-Robinson, 2005) recently devoted a *Library Trends* issue to digital preservation, with a particular emphasis on current practices. In this issue the contributors examine digital information more broadly. For example, sometimes we must focus on maintaining the *ability* to reproduce a record that is reliable and authentic over time. This is a different conceptual model from the artifactual model upon which conservation and preservation have been built. Kevin Bradley investigates what is meant by “digital sustainability,” saying that it encompasses a range of issues and concerns that contribute to the longevity of digital information. Yola de Lusenat uses the example of the *UNESCO Charter on the Preservation of the Digital
Heritage to raise questions about what digital heritage actually is. Karen Gracy considers the changing landscape of moving image archiving in the light of developments such as YouTube and suggests that a new archetype for moving-image stewardship is emerging. Ingrid Mason examines ideas of permanence in the digital environment, with examples of how preservation practice is changing in a New Zealand research library.

It is often through collaborations and partnerships that we seek ways to address complex preservation problems. Howard Besser explains why collaborative activities are essential for the preservation of digital materials and provides two case studies of collaborative projects in the United States. Paula DeStefano and Tyler Walters note the history of preservation efforts in archives and in libraries and demonstrate that the expertise and resources of archives and preservation departments can be shared in managing the preservation of archival materials. Ross Harvey describes issues surrounding a major international collaborative preservation project, UNESCO’s Memory of the World Programme. Using examples from indigenous cultures, Sherelyn Ogden emphasizes the importance of an increased understanding of different cultural practices and for collaboration between those who create and use cultural heritage and those who seek to conserve it.

The need for ongoing continuing education is also critical. Ann Russell examines the influence that the Northeast Document Conservation Center’s ‘School for Scanning’ conference has had from 1995 to date in bringing digitization and preservation to the consciousness of libraries and archives and in maintaining awareness of the attendant technical, managerial, and policy issues.

This issue of Library Trends describes some of the issues that are common among the archives, library, art, and historic preservation fields, and shows how these issues help us focus on the past and perceive contemporary culture.

In 1956, preservation was narrowly focused on institutional practices. Today, to assess current trends properly, we must take a broader view. The contributions to this Trends issue cut a wide swath.

References
Valuing Preservation

Abby Smith

Abstract
Preservation has value to society over and above the value of the content that is preserved. It is important to articulate this value in order to argue compellingly for the creation of public policies and economic models that adequately support preservation of culturally significant content. This article explores the societal value of preservation, discussing why questions about societal value arise in the context of the explosive growth of digital information and why they are qualitatively different questions from the ones that arose when the world knew only analog communication technologies. It assesses various ways to think about the value that inheres in content, particularly the distinctive attributes of cultural content that have societal value. It identifies benefits that preservation as such brings to society, over and above the sum of the value of the content preserved. It also examines the range of public policy issues that arise in light of the social values identified, virtually none of which are currently protected by law or regulation. In light of these societal values, it argues that the preservation community needs to collaborate with other sectors crucially dependent on long-term access to significant content to develop strategies that: make it easier and cheaper to preserve content; provide incentives and rewards for individuals and organizations to preserve; and protect the public interest in privately held content.

Introduction
As a society, we in the United States value access to information. In our roles both as citizens and as consumers, we prize our national tradition of public libraries, government archives, free press, and now, seemingly un-
hindered access to online information via the World Wide Web. Current public policy debates surrounding access to information are concerned primarily with ensuring an equitable and just allocation of the costs and benefits of access. However, most people—even those leading the debates about copyright, licensing, and open access—are thinking about access today. They are not aware of the economic costs, or societal benefits, of providing access to cultural content over an extended period of time. This lack of understanding on the part of the general public and many public policy advocates has proven to be a significant stumbling block in securing adequate resources to preserve our analog collections. It has emerged as potentially an even bigger impediment in our endeavors to retool our preservation infrastructures to assure long-term access to digital content, including digital cultural heritage. In recent years preservation professionals have taken to characterizing their work as provision of “persistent access,” “life-cycle management of information assets,” “sustainability,” or “stewardship” in the hope of underscoring the societal value of preservation. Is anyone listening? Does the public care? Will they be willing to pay the price for preservation, however we call it, in the twenty-first century?

While the scope and quantity of resources necessary for analog-based content preservation are not known in vivid quantitative detail by professionals, there has emerged in the past half century a common understanding about what primary analog preservation cost factors are, how to build economies of scale into their provision, and how to restructure organizations and create inter-institutional collaborations to afford them. The widespread adoption of digital technology for creation of and access to culturally significant content is scarcely a decade old, if one takes online sharing of digital resources as the tipping point for adoption. There are nonetheless a number of efforts vigorously underway to understand the economic impacts of managing digital content for long-term access. How much we can afford to collect and preserve; how much we can afford to lose; and how much all of this will cost in human and financial terms—answers to these questions are critical for making the preservation case to funders. They are also crucially important, largely ignored, public policy matters.

Many professionals suspect that preservation of digital content is even more resource-intensive than that of analog, if only because there is more content, used by more people, to capture and preserve (Lyman & Varian, 2003). How high the cost will be a shock, no matter what kinds of value we may point to as the result of public investment to ensure that the digital record of today be available next week, next year, for the next generation and the next after them. Without clarifying to the public why it is important to society in general and to individuals in particular to make long-term commitments of resources to the collection and preservation of cultural content, it is unlikely to happen. And without such an understanding, we will not be able to make judicious and equitable decisions.
about how those costs should be allocated among the various private and public sector constituencies.

This essay is intended to frame the question of the societal value of preservation within the context of contemporary U.S. society and public policy. A salient feature of our culture is the degree to which we extend analog and digital communication technologies into all aspects of civic and private life and have become, for all intents and purposes, critically dependent on these technologies to live safe, productive, and meaningful lives. Failure to nurture a stable and reliable information environment will put a good deal of our well-being and safety at risk. I wish to foreground here the priority claimed by preserved cultural content, that which has embedded in it historical experience and meaning that are constitutive elements of that stability and reliability. The integrity and historical continuity of cultural content are a matter of the highest priority to our society, for reasons I shall argue below. Moreover, the preservation of that cultural content rightly should be viewed as a matter of public trust, something that transcends individual or particular interests or ownership and that demands public resources and public policies to protect it. I shall use the term cultural content in a completely non-technical way, in the hope that it will be understood in an inclusive sense whose full detonations will become clear as we proceed. Culture can be understood as “the totality of socially transmitted behavior patterns, arts, beliefs, institutions, and all other products,” more specifically “intellectual and artistic activity and the works produced by it” (American Heritage Dictionary, 2000, p. 442). I shall refer to the recorded works produced by culture as content.2

I shall begin by discussing why questions about societal value arise in the context of the explosive growth of digital information and why they are qualitatively different questions from the ones that arose when the world knew only analog communication technologies. Then I will assess various ways to think about the value that inheres in content, particularly the distinctive attributes of cultural content that have societal value. I will identify benefits that preservation as such brings to society, over and above the sum of the value of the content preserved. I will close by suggesting the range of public policy issues that arise in light of the social values identified, virtually none of which are currently protected by law or regulation—a curious position for a public trust. While begging the ultimate question of cost allocations—who should pay—I will argue for why we, as a society, should be willing to pay.

**What’s the Problem?**

Why does the exponentially expanding scale of digital content creation present a novel challenge to society’s willingness to pay for preservation? After all, information explosions are nothing new. They are an inevitable consequence of any innovation in recording media. Looking back
only 150 years, we see the production of inexpensive wood pulp paper, the development of audio and visual recording media, the invention of magnetic tape—all these engineering and manufacturing feats resulted in a boom in content production and a subsequent boom in content consumption following along within decades. Each in turn challenged traditional practices of stewardship, both technically and conceptually. Following this historic pattern, digital communication technologies have certainly accelerated the demand for access to information. They have given rise to an explosion of professional, amateur, and “pro/am” audiences for and auteurs of content of all kinds, including digital representations of and information about cultural content. Content owners and distributors have expanding audiences for vintage recorded sound and moving image, from Duke Ellington and Glenn Gould reissues to early Alfred Hitchcock films and the original Twilight Zone. Collecting institutions of all stripes, from the Metropolitan Museum of Art and the Hermitage Museum to the Library of Congress and the “Google Five” (now Six) research libraries have invested significant resources to extend the reach of their artifactual collections through digitization. Content distribution companies and memory institutions conspire to feed—and in turn create—a seemingly insatiable appetite for cultural heritage both virtual and artifactual. Logic would tell us that increased demand for content would naturally increase demand for preservation of that content.

But logic would be wrong. Paradoxically, the proliferation of digital content, in high demand today, can make it harder to argue compellingly for preservation. Its sheer abundance and ubiquity makes digital content appear perdurable. And mirabile dictu, the Web provides masses of good-enough information to users without extracting a transaction fee. It is hard to see why we would need to start a public conversation about how to configure fair and equitable allocations of costs and benefits to ensuring long-term access to preserved content among societal sectors: whenever we go looking for information on a search engine, we find much more than we can use. There are no costs and everyone benefits, right?

Before we can even talk about who should bear the cost of long-term access to content of value—the ultimate public policy question—we should be able to argue compellingly why it matters. To date, we as a society have done poorly in making the case for public investment in preserving content. According to the evidence recently gathered in a national survey on the status of cultural content collections, our ability as a society to marshal resources to support preservation of our artifactual past is feeble (Heritage Preservation, 2005). Yes, government officials are known to wax eloquent on the heritage of our past and its value to present and future generations. But in reality it has fallen to the private sector to act as stewards of large parts of our recorded past, chiefly through philanthropy and an array of financial incentives featuring private ownership of publicly val-
ued culture and the intellectual property embodied in it. Libraries and archives—agents of the public trust—have benefited from a copyright regime that grants them exceptions for preservation of analog content. But the Section 108 exceptions to the copyright code are outmoded and fail to ensure preservation of many non-print analog-based cultural items, let alone digital content. It is entirely possible that current efforts to reform the law may be marginalized by the avoidance of copyright law altogether in favor of licensing access to privately held content.4

The report on the state of cultural collections, A Public Trust at Risk: The Heritage Health Index Reports on the State of America’s Collections (Heritage Preservation, 2005), does not conclude that society is unwilling to pay for the stewardship of our collective cultural wealth. But it begs the questions of why the public trust is held in so little regard, and why its stewards are apparently unaccountable to the public, unable (or unwilling?) to rally resources for fulfilling the obligations they accepted when they accepted that trust.5 That said, the systemic destabilization caused by our newest information technologies gives us an unprecedented opportunity to try to get it right again. The preservation community has an enviable chance to enlighten our society about the vital interests we collectively have in access to our cultural heritage, and to support the professionals that ensure that it is authentic, reliable, and easily found for access and use.

DOING PRESERVATION: ANALOG VERSUS DIGITAL

Digital content necessitates fundamental change in the methodologies and practices of stewardship throughout content’s entire life cycle—including, of course, preservation. The good news is that not only the heritage sector is at work on this challenge. Our national security, economic, political, biological, and social well-being is now so critically dependent on reliable information management systems that it is not only preservationists who are grappling with the need to retool their infrastructures. Sectors that are information-intensive, from the military and law enforcement to medicine, science, engineering, manufacturing, agriculture, transportation, business and finance, insurance, higher education—are there any that are not?—find they require fundamentally new kinds of infrastructure to manage and preserve vital digital records. Infrastructure retooling requires a clear strategy to implement. It entails dedicating existing resources to new kinds of activities, establishing a series of long-term investments, rethinking the use of human resources and retraining of staff, expensive set-up costs for technologies, and so forth. It also entails finding new means of support and reassessing existing allocations of costs and benefits. Above all, it demands vision and leadership.6

The fundamental conceptual change that digital communication technology brings to organizations and to individuals is the need to manage
abundance, not scarcity (Hilton, 2006). Among the challenges of managing the much-too-muchness we must adapt to are:

- ever-increasing dependence on fragile technologies;
- adjusting preservation strategies to the different time-scales of digital content; and
- disappearing barriers to content creation resulting in the elimination of scarcity as a benchmark of value.

The Challenge of Technology

The rapid obsolescence of software and hardware is well known by now. But solutions to ensuring integrity and authenticity of complex content through hardware and software upgrades have not yet emerged. For the time being, we seem destined for information technology regimes in a state Comrade Trotsky would have recognized as “permanent revolution.” Yes, storage is getting cheaper and cheaper. But storage is not preservation, a not so subtle distinction we have not yet made widely understood to technologists and non-specialists. No one is yet promising us that preservation will get cheaper and cheaper.7

The Challenge of Time-Scales

Until and unless we are able to automate nearly all processes for preservation after the initial decisions about what to collect are made, collecting, stabilizing or normalizing, and preserving digital content will remain a dynamic process demanding frequent human interventions. In contrast, analog preservation strategies can rely on some passive, very low-touch techniques, often as little as providing good housing. Though such passivity is seldom the best approach, it proves to be surprisingly forgiving at times. A remarkable amount of paper–based matter has survived years of deferred maintenance and outright neglect. But how would digital content fare under such a regime? Preservation of complex multimedia content—often the flavor primary sources of the day come in—requires more up-front planning, more active management, and possibly greater short- and long-term investments. The options for retroactive actions, including retrospective collecting, are few. So we need to act now, to expend resources now, to collect now. The reflex we have inherited from artifactual preservation practice is to justify present action against some future value. But how do we get a fix on the future value of digital content, especially in the cultural content area that fills the pages of the open Web?

The Challenge of Lower Barriers to Creation

Getting a fix on future value of digital content is hard in part because the technologies that make it so easy to consume digital content also make it dismayingly easy to create it, to distribute it widely, to appropriate con-
tent, change it, and create more, replicating this cycle and accelerating the growth of content. This can be done easily, promiscuously, and without barriers between creation and distribution. This may be excellent for us as citizens, and as consumers. It may be a boon to cultural heritage to give voice to many members of a culture. But of course for collectors, and especially for preservationists, it makes the business of selecting, collecting, preserving, and making available content rather more of a challenge. One answer to this challenge is not to choose at all but simply collect everything we possibly can, a strategy I shall return to.

Finally, there is the conceptual challenge of articulating intrinsic values inherent in content that is abundant rather than scarce. From a preservation point of view, it may be enough to say that certain attributes of cultural heritage objects that are benchmarks of value—rarity or uniqueness, antiquity, a physical object’s aesthetic appeal and ability to be a repository of affect and association—are gone or at least marginalized. With artifacts, we can use the happy coincidence of uniqueness and physical instantiation to declare a thing that is scarce to be valuable simply because it is scarce. (“A rare book is valuable because it is rare.”) Through reformatting, an incunable can have its intellectual content reprinted and physical attributes exquisitely represented in high-resolution scans; it can end up being more accessible for examination and at levels not attainable by the naked eye. But of course the imprint itself will continue to have value simply as a rare historical object. Its rarity has fixable market value as well. But we have no intrinsic scarcity in digital content, only the faux scarcity created by restrictions to access, usually designed to create market value and often resulting in decreased usefulness.

As frustrating as it may be, we cannot avoid trying in the present to determine the future values in digital content. Even if we decide not to make decisions about what to collect based on value and decide instead simply to collect as much as we can—an interesting thought experiment—we would still need to consider the values that inhere in the content. We need to identify value in order to know how to engineer the processes that will preserve content, that is, how precisely to ensure against loss of that value over time. So let us consider some aspects of value in content, before turning to the matter of value in preservation itself.

A Few Theories About the Value of Content

For the sake of brevity, I will forego discussion of the aesthetic, documentary, evidential, forensic, and economic or market values of content. These are values that are well known and understood by librarians and archivists and I have nothing original to contribute to their understanding in the current context. I will focus instead on aspects of content value that I believe behave differently in the digital realm or otherwise are not
obvious. The factors we must consider in order to get a deeper sense of just how crucial preservation is include:

- the usefulness of content (utilitarian value);
- the value of content as constitutive of our human nature, including its importance for ensuring biological homeostasis (species value) and its ability to give pleasure (hedonic value); and
- the value for re-use (secondary value).

The Value of Content Lies in Its Use

By virtue of its immateriality, digital content has the potential to be so much more useful to people than analog content. It is not embedded or exclusively instantiated in a unitary physical object that limits access to that content to one point in time and space. In other words, digital content is useful first and foremost because it is easy to use—easy to gain access to, computer-accessible anywhere, at any time, available both through push and through pull on smaller and evermore portable devices, and available to many people simultaneously. Digital access to content increases the autonomy of individuals as information-seeking creatures. Autonomy is a civic virtue highly prized by our society.

In the economics of information, use creates value. The more one uses content, the more valuable it becomes. An obvious corollary is that the selection of an item for use actually creates value. (This does not always equate to market value, but sometimes it does.) This is in fact the principle that underlies the page-ranking system used by Google, to take an obvious example. It is important to remember that a page rank is supposed to mean “people found this most useful,” not “people found this to be better and of higher quality than everything else.” Page rank expresses objective, that is, measurable, value. It does not exclude subjective value, but the search does not explicitly factor that in.

The usefulness of content is an important concept to grasp in thinking about societal value, and it is one that may strike some in curatorial and preservation communities as wrong-headed. To take an example: in the usual calculation of special collection libraries and archives, use is often seen to *demonstrate* or *validate* the value of something, but it is not credited with *creating* the value. That is, just because something is not used does not mean that it is not valuable. This understanding would argue for the notion that value is essentially intrinsic and cannot be conditioned by external factors such as use or even the perception of value. Perception of value is subjective and is conditioned by time and place. Some things that are currently prized by researchers and collectors will be neglected inside of a decade or two. The instances of collections languishing in book stacks untouched for decades and then coming into demand are legion. The increased use of cookbook collections, runs of Penny Dreadfuls, and other
collections perceived to be expressions of popular culture provide contemporary instances. Did years of nonuse actually decrease their value, or was that value simply unpotentiated?

In terms of assessing value, neither of those two questions address whether or not use itself increases value. I would argue that their current demand has, in fact, measurably increased their value. Because such nineteenth-century print collections as Penny Dreadfuls and housekeeping manuals are being used more, they demand more time of staff; because they are more at risk of being harmed (intentionally or not), they demand more staff and monetary resources to ensure their physical safety and usefulness. Items will often take a trip to the preservation department; they will receive more attention to their security in the reading room; and then of course, for the final “value-add,” they will spend time in the scanning department to be reborn digitally. All the while, they “gain eyeballs,” and not coincidentally, chances are they also start to gain market value. In many cases, library staff will track value of like items on eBay to gauge exactly how much the demand for such items increases. While it is critically important to hold firm the idea of the potential value of any given item of preserved content, it is equally important to acknowledge that it is the realization of that potential through use that is the goal of all collecting, curating, and preserving expenditures. The only possible reason that someone could wish for preserved content not to be fully used is because it puts the content at risk of losing its value through deterioration, defacement, theft, or other forms of degradation.

Significantly, these are not normal risks to digital content. Indeed, it is likely that, given the way preservation operates on digital content, the more digital content is used, the likelier it is to be preserved. And the more accessible content is—the more open the stacks, so to speak—the more likely the content will be found, tagged, cited, annotated, marked up, page ranked, recommended, and so on. It may or may not be true that information wants to be free, as people are fond of saying. But it would be true, if content were a species, that it would want to be open, because it would want to be found, to be used, to be replicated and preserved by staying in circulation—in short, to be fruitful and multiply.

The Species Value of Content

But what about digital content that is not frequently used—is it destined to die off? The fact that it might well would argue for collecting in the present as much digital content as we can possibly afford, even if we do not know what value it may have now, or in the future. Even if we can afford to do only “physical preservation” (that is, of the bits) and not be able to afford—or simply do not know how to do—“logical preservation” (maintain its renderability into something comprehensible to humans or machines), capturing content when you can is the safest strategy. Not only
is it a good bet to assume that technological innovation will continue and afford us the ability to decode the data later, but we should also assume that entirely new kinds of software may, through new types of data mining, find entirely new types of valuable information and expressiveness in preserved bits. To take yet another obvious example, think of the additional information that geographic information system (GIS) functionalities have given to existing data about where people live and where they work (demographic evidence of population shifts); where diseases cluster in a given population (epidemiological information about disease vectors); where people are registered to vote and in what number they turn out to vote (political information about civic engagement); what they purchase (market information about distribution patterns of consumption); and so on.

In the natural world, we can now track which particulate matter is found where in the atmosphere, what altitude certain plant species were found twenty years ago and where they are now (atmospheric and biological evidence of global warming); where tectonic plates underlying the Indonesian Archipelago were in November 2004 and where they were in January 2005 (seismic information); and in general, any combination of spatial and temporal data. Indeed, given the importance of tracking change over time in all four dimensions and the expanding functionalities of GIS, virtually no content about the natural world, including our impact on that world and our cultures as sites of biological phenomena (what I would call content with “species value”), is not worth capturing and keeping for some future use. In such a scenario, the decisions made about preservation do not center around what to preserve, but how to preserve, assessing types of value and using a cost-benefit analysis or other techniques to determine at what level of physical and logical preservation, what kinds of resources should be expended at which points in the expected life cycle of the content, and so forth.

In the case of much scientific and engineering data, it appears fairly straightforward to understand future uses of data, as their primary value for science and engineering rarely expires. These domains of knowledge rely on the accumulation of data as well as of knowledge. Data, independent of knowledge, will retain their value long after a so-called paradigm shift in explanatory models renders that knowledge model (“paradigm”) of historical interest only. We already know that we will need specific kinds of information about the disposal of toxic waste; about the power grid; about the load capacities of rivers, levees, and dams; about genomic, proteomic, and pharmacological molecules; about geological and seismic activities, and on and on. Here we must think about risk management strategies for preservation systems, as we should move away from mooting what we can afford to keep and focus rather on what, if anything, we can afford to lose. There are nascent efforts underway to further understand the
need for longitudinal data sampling and retention strategies, for database preservation, and for the data curation that these will demand.⁹

A Word on Behalf of Pleasure

What about the needs of cultural heritage content as distinct from scientific data? As readers will have noticed by now, I have not been making very fine or consistent distinctions between artistic, personal, scientific, geospatial, or other types of content. It is difficult to draw bright lines between the kinds of information that falls into the cultural heritage category and that which falls outside because the same content can have different significance in different contexts. For those who study humans and the products of their cultures, nearly all recorded content has value as the object of cultural study. Even content that is created with strictly scientific purposes can be prized for its historical, documentary, and aesthetic values. We know from the numerous natural history tomes that are now in rare book collections, such as illustrated botanicals, that scientific data having value for scientists for its record of past botanical species distribution, for example, take on a life of their own as precious commodities and aesthetic delights. Contemporary scientific data can have an equally aesthetic and hedonic value for the general public. Yes, the astronomical data that stream back from the Hubble telescope are not gripping to the average Web surfer when viewed as computer code. But NASA performs a kind of optical wizardry on those deep-space data to render them into mesmerizing, consciousness-altering images and posts them on their Web site in order to make their findings more accessible to the public and—lo and behold—people are affected intellectually and emotionally. Content has the power to provoke emotions such as awe and curiosity, both of which are pleasurable sensations. The information embedded in expressive content (which I consider those NASA images to be) is conditioned by the affect that it invokes and gains power thereby.

To the extent that any content performs cultural functions—recording experience, shaping perceptions of our world, adding or subtracting meaning, providing pleasure or inflicting pain—it should be construed as cultural. Cultural content plays a critical role in the production of meaning, and to the extent that it is used and shared, it also conduces to the development of empathy and social cohesion. It is in this role, among others, that cultural content is a pure public good, something that can be used by many yet never used up. Indeed, as I have been arguing, the more extensive the use by the greatest number of people, the more value it accrues and the greater the public good. That cultural content can serve many functions simultaneously simply indicates its value vector is manifold.

Salient differences between how content functions in a scientific context versus a cultural context have to do with different ways that the primary and secondary values of content operate. And these distinctions de-
rive in turn from the ways that content value is conditioned by different user communities.

*Content has Primary and Secondary Values*

Any given value in content is identified in the first instance by its creator or user. For what purpose was this item created, and who found that purpose to have value to them? Why was this commercial film made? To entertain and, if it was successful in doing so, it would make money. Why was this personal Web site created? To make public something the creator wished to communicate, and if it “got eyeballs,” it succeeded in communicating that and possibly being linked to and getting more eyeballs. Why was this business record created? To comply with a regulation to do so and, if successful, to provide auditors what they required. There is little room for confusion about what the primary value might be in any given instance, because the intention of the creator is seldom hard to determine.10

The secondary value in content is a use above and beyond the use intended upon creation. It is the reason for re-use, and thus is the value that absorbs the attention of librarians, archivists, collectors, and connoisseurs. In some sense, it is only in the secondary value that preservation comes into play, in that it implies an investment has been made, or must be made, in order to make content available for use in a different context than its intended, primary use.11 Usually, some effort is made to identify the potential secondary values of content to justify allocating preservation resources to its care. The value of preservation in this scenario is the value of using information at some time after the end of its normal accessibility for primary uses. In many cases, identification of secondary value is fairly straightforward, as in the case of the personal papers of important people, television news broadcasts, the recordings of famous performers, and so on.

But thinking that secondary value is always obvious has created regrettable lacunae in our cultural record. My favorite example—well known, vivid, and still painful—is the loss of close to 80 percent of early moving image materials. The primary use of cinema for decades was as commercial entertainment, as “product.” Not enough people understood its secondary value as historical testimony and cultural heritage to make preserving it a priority, given that it is difficult to preserve. (Not only difficult: nitrate film is literally dangerous to keep around.) There is something very suggestive about the notion of preserved content—such as silent films on nitrate—as a form of stored energy, with the potential to come back into life to serve any number of unknown, perhaps unknowable, purposes. The denser the information storage medium, the more possible value it has recorded on it. Image technologies are incredibly dense information carriers and can convey so much information at once. In a melodrama from 1906 we can see the way people dressed, walked,
held their hands, and made gestures; or the shape of the landscape 100 years ago; what faces looked like before contemporary dentistry, universal inoculation against small pox, or modern nutrition. Digital content may in theory require significant upfront expenditure of today’s resources to maintain that information potential over time. But it also has the promise of being more useful to us, because of its multimedia capabilities to record the world around us.

In many ways, the analogy with nitrate film is instructive by being misleading as well as suggestive. For our early film heritage, no matter how valuable it may or may not have seemed at the time or how difficult to preserve, still constitutes a very scarce form of content. You could have saved all of it and still have less than the content you can see on YouTube.com in five years—or is it one year?

The Value of Content Is Conditional

It stands to reason that if use of content creates value, then users are the agents of valuation. Yes, that sounds like the Web: the reputation systems that characterize Google, Amazon, eBay, MySpace, YouTube, Flickr, and so on are all based on user valuation of content. And yes, that is why they are wildly successful in providing value to users. But that principle is really old hat in the content world. Users have always been arbiters of content value and if the users are experts, of quality as well. In some contexts, we see the user-as-auditor who decides the value: does the record meet legally mandated standards of accountability. Or the user-as-consumer: what will I pay to acquire rights to use that content. Or the user-as-researcher: does that content meet my information needs. In all cases it is the expert user who determines the value of content for a specific purpose. The Internet has just changed who gets to be credited with expertise and how.

As a rule, societies are prejudiced in favor of experts, and for very good reasons. As societies become more complex, they develop prodigious amounts of expert knowledge that afford certain advantages for adaptation to the environment. This expert knowledge must be carefully stewarded in order for the next generation to use it. After a while, a society comes to be dependent on such knowledge. Scholarly experts in general are ideal arbiters of the value of academic content. Scientists are better at assessing the value of scientific data in their field than an untrained user, and so on. The openness of the Web, combined with Wiki technologies and others, have given rise to new models of expert contribution, editorial and peer review, and ways of making content of known value available. Here again we can point to certain advantages that digital information has over analog; it lowers the human overhead in assuring the quality and accessibility of information. The fact that in a large number of cases—certainly more than educators like—users will opt for good-enough informa-
tion rather than the best possible does not change that. Rather, it testifies to the judgments users make about how they wish to use their time.

**The Value of Preservation**

What does all this have to do with the value of preservation? Perhaps it is enough to point to the sum total of content’s value to justify all our demands for preservation support. Utilitarian arguments tend to be persuasive to Americans. But I do not think that is an effective or reliable strategy to fund so essential an activity as preservation at the scale which it must now attain. Preservation may be necessary, but it is not necessarily instinctual. After all, humans are designed to prefer instant gratification over delayed gratification. Indeed, the implication of the common phrase “a bird in the hand is worth two in the bush” is that we are programmed to prefer short-term rewards over long. This is what economists have maintained for years and scientists more recently are validating, some proposing this reward preference as an evolutionarily advantageous strategy for survival that has been naturally selected. (The bird, after all, is a meal.) I also think that while some content owners are prepared to pay to secure the primary value of content, they are by and large not likely to spend sums to create the possibility for others to mine secondary values. Those charged with securing the secondary value of content, usually memory institutions, lack sufficient resources to do so, a finding that has been sadly documented by the Heritage Health Index. That is why cultural content needs to have greater protection from risk of loss than our society currently musters. And that is why we need to articulate specific values in the business of preservation itself.

So let me extrapolate a few of the distinct affordances created by preservation that have been identified so far in this paper:

- Preservation is the cost of access
- Preservation is insurance against loss of value
- Preservation protects against loss of business continuity in the event of disruptions and catastrophes
- Preservation protects our critical information-based dependencies
- Preservation adds value to content by maximizing its potential for reuse

These are all concrete benefits one could factor into a cost/benefit analysis or could cite to persuade decision makers to spend money on a risk management and mitigation strategies, on disaster preparedness and response plans, on insurance against loss, and to ensure business continuity.

The ultimate societal benefit of preservation is, of course, to ensure the well-being of the population and the survival of our society, and indeed, our species. Given that information is a constitutive force in society,
all aspects of its integrity, completeness, authenticity, and accessibility are profoundly important. And all choices about whether we do or do not decide to preserve historical records and cultural expressiveness from times past are themselves constitutive choices (Braman, 2006; Starr, 2004, pp. 4–5). As Russians are fond of reminding themselves, “The future is certain, it is the past that is unpredictable.” A people who do not own and control their own cultural heritage are a people who can be held captive by false histories, fabrications, and lies. The genius of totalitarian societies is that the need for brute force to make subjects out of citizens is really quite modest. If the government controls what people know about their past and their present, they limit the scope of their imaginations and can control their expectations for the future. We may hold dear the notion that because we are not a totalitarian country, we are not at risk of developing false memories, fabrications, and blank spots in our past. But that complacency is dangerous. Memory can play tricks on all of us.

In truth we need both historical knowledge (knowledge about the past) and memory (knowledge from the past) to be rich, complete, authentic, and reliable, for the social cohesion and moral life of a community (Margalit, 2004, p. 114). The need for preservation in the service of historical knowledge is well understood, in particular by librarians and archivists. But our understanding of memory—how it works biologically and the function it plays in our destiny as individuals and as a species—is a rather more novel investigation. We are beginning to understand that memories are emergent neural phenomena, literally the remembering of discrete packets of information and affect. In order to have functional memory, the information packets must be intact and the affect unimpaired, able to provide accurate clues about the importance, priority, and purpose of the information held in memory. And the emergent memory must find the right context in a web of other memories that can situate its meaning in the present. 12 Senile dementia, amnesia, and Alzheimer’s are examples of what happens when the remembering system as a whole does not work because constituent parts begin to fail. In the case of Alzheimer’s, we can point to physical holes in parts of the brain that may account for some of the failure to remember information and attach the appropriate affect to it. In the historical fabric of any culture, there will be such holes as well, and there we find confusion, confabulation, loss of identity and of purpose. What is uniquely important about cultural content, as opposed to factual information and knowledge about our world, is the moral value of having access to knowledge from the past, in its authentic and unmediated form. While I will not get into the “notorious intellectual quagmire” that is speculation about the evolutionary basis of morality, I will simply assert that ethics count and constitute another reason preservation has societal value (Coyne, 2006, p. 983).
Public Policy Implications of the Value of Preservation

In order to better secure a whole, accurate, and useful shared record of the past, we need to make several things happen:

- Make it easier and cheaper to preserve content
- Provide incentives and rewards for individuals and organizations to preserve
- Protect the public interest in privately held content

Make It Easier and Cheaper to Preserve Content

Preservation of both artifactual and digital content could be less expensive than it is if it were properly engineered. For both analog and digital content, it is better to invest in prevention and measures taken upstream than down. For artifacts, that would mean better storage environments, with disaster preparedness and recovery plans in place, stabilization of content through such means as deacidification, rehousing, transferring to stable media, and so on. Such an approach is appropriate for born-digital content as well: we should be aiming to make content “born-archival,” in relatively stable or ubiquitous formats, replete with automatically generated metadata, regularly backed up off-site, and residing on systems that are geared to the “permanent revolution” of technology changes and upgrades. The preservation communities that support different media could develop a technical research and development agenda whose specific aim would be to test promising preservation-friendly technologies and move proofs of concept into production mode.

Provide Incentives and Rewards to Preserve

In order to ramp-up preservation activities at a sufficiently large scale, we shall need to mobilize both organizations that produce content and individuals who care about it. How do we provide incentives for creators of digital content to make the content born-archival? This is clearly an important area for investigation, and the economics of archiving is a woefully underdeveloped field. Given the values and characteristics of content that I suggest truly matter when thinking of society’s willingness to pay—conditioned by time and place, contextualized by use, having community-defined values that can be widely and simultaneously shared yet seldom at risk of depletion, and essential for the well-being of society—it seems that we would have a good deal to learn from environmental economics. They, too, look at issues of balancing short-term and long-term time horizons, providing incentives to private entities to protect the public interest, developing tax and other financial policies that attempt to monetize the benefits of doing so, and so on.

It is not enough to insist on the value of preservation without working
to create real-world strategies to promote and protect it. While it is desirable, of course, for governmental entities and prestigious international bodies to declare the value of preserving content, it becomes counter-productive when they do so without making provision for financial support and compliance requirements. Digital preservation does not need to join artifactual preservation as a worthy but bankrupt ideal, yet another unfunded mandate. The information landscape is littered with requirements to preserve or deposit data in trustworthy archives, yet there is little funding earmarked to do so and few unpleasant consequences when directives are ignored. Advocating that private companies which create content start to be responsible for preserving it for the collective good will fall on deaf ears. For them as well it would become an unfunded mandate.

Protect the Public Interest in Privately Held Content

It becomes readily apparent that cultural content that does not receive resource investments that maximize potential for reuse, such as metadata creation and tagging, open distribution, spidering, and redundant downloading, curation, and asset management, has very little chance of surviving for long after it has lost its primary market. Content that is actively used for its primary value probably faces little risk of loss; and the growth of the long-tail market for some creative content assures a longer life span for a significant portion of books, movie, and music that might otherwise become inaccessible. But let us imagine a situation in which some segment of society wishes to have access to some content that is privately held and not actively used, or is negligently stewarded—the assets of a defunct recording studio, say, or the papers of an influential journalist. Is that public entitled to have access to that content for the sake of enjoying its beauty, taking pleasure from it, or using it for educational purposes? We may not have the right to own it, but do we not have some interest in access to it at some point in time? What protection do we have against the loss of such content?

Not much, it turns out. The “intangible elements of our cultural heritage such as arts, skills, folklife, and folkways” are protected by the National Historic Preservation Act Amendments of 1980 (Public Law 96-515) (American Folklife Center, 1983). In 1988 the National Film Preservation Act was enacted (and has been subsequently reauthorized, most recently in 2005), to identify and preserve moving images of national significance. The National Recording Preservation Act of 2000 likewise is designed “to maintain and preserve sound recordings that are culturally, historically, or aesthetically significant.” These are excellent legislative recognitions of the importance of cultural heritage to the country. But they are hampered by having to work within a copyright regime that is counter-productive to their aims. Congress long ago bought the argument that extending copyright monopoly over content such as recorded
sound, image, and text would provide owners an incentive to preserve it and make it available to the public for prices that the market would bear. This has not turned out to be an entirely successful strategy.\textsuperscript{18} It would be preferable to let such material that is either neglected by its owners or orphaned into the hands of the public and let it find those who are willing to adopt it, take care of it, and protect its value. This is a role that collectors have played for centuries, and we do not even need to be creative about inventing incentives to encourage them to do so. If we were to open up access to this kind of content on the Web, it would be even easier to attract users who would describe it, tag it, recommend it, and increase its use and its value. I am not arguing for requiring private owners to preserve content at their own expense for the public good. I wish they would, but to mandate this amounts to an unfunded mandate and is not likely to achieve any of the desired effects. I do think that we should begin a national conversation about how to enable content owners to continue enjoying the benefits of owning content, especially its primary value benefits (which is usually making it available in the market place), while ensuring adequate stewardship of it for the collective good. We should condition the privileges of ownership by the obligations of ensuring that potential for secondary use—cultural reuse in particular—not be nullified. There are, of course, many possible ways to make this happen. (This is what one possible function of a dark or dimly lit archive would serve, for example.)

What about content that is already publicly available? There is something extremely appealing about the model we see with certain kinds of content available on the open Web, much of it of cultural significance. It is the kind that benefits from this wonderful economic model of “give it away, build reputation, charge for value-added goods or services” such as ad space, higher resolution version of the content, a hard copy. How can we make this work for preservation of cultural content?

Finally, let me argue for additional incentives and rewards for those institutions that act as surrogates for the public—the libraries and archives, museums and herbaria, historical societies, data repositories, and other stewardship organizations that act on behalf of the public to provide preservation of socially significant content. I believe that they should continue to benefit from whatever legislative and funding considerations they need to discharge the public trust. I would also argue that they need to be more publicly accountable for what they do, or do not do, so that they may demonstrate that the trust the public places in them is well tended. We have a right to expect that they will also be stronger and more effective advocates for preservation than they have been and be able to articulate the societal benefits of stewardship in the language that others speak. Several years ago I was admonished by a scientist who was actively engaged in establishing data curation protocols—preservation requirements—for his field.
that librarians should never use the word “preservation” when what they really mean is access. Yes, he said in effect, it is access to noncurrent data, and there are many processes one needs to undertake in order to afford the use of noncurrent data. And yes, librarians may call that preservation. But one must always speak of processes, especially complicated and expensive processes, in terms of their end result. Then people can follow the conversation with sympathy and interest.

I cite this anecdote in part to suggest how others think technical issues of data curation and preservation should be discussed in mixed company. But I also wish to applaud the sheer common sense that tells us that when we enter the arena of public policy—as I believe we must—then it is the benefits of preservation that are most vividly articulated. I do not underestimate how difficult that can be. Nor do I think that the societal benefits of preservation that I have sketched here are a complete list of all that our society has to gain from having access to knowledge from the past. Indeed, these are only the beginning. I believe that collaborations with cultural anthropologists and neuroscientists, economists and engineers, ethicists and historians would deepen our understanding of these benefits, help to develop compelling arguments for their support, and suggest real-world solutions to making preservation cheaper, easier, and more rewarding.

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Notes

1. To take the case of imprints: we understand the basic photochemical and thermal processes that lead to the degradation of paper. We know how to retard and even arrest that degradation through such means as deacidifying paper, providing ideal storage environments, and creating use surrogates to reduce handling originals. We know how to achieve economies of scale for all these measures as well, even if we have not always implemented them.

2. I wish to avoid the confusing term intangible cultural asset, as often the content this refers to is in fact recorded onto tangible media. In this essay I refer to content as the products of intellectual and artistic activity that are textual, visual, aural, and numeric, information-based, and recorded on a medium, either analog or digital. So I exclude the built and unbuilt environments and cultural products that are not recorded onto media. Content is often subject to copyright regulations. In some instances I refer to data gathered by humans, which is, of course, not subject to copyright.

3. Six research libraries have embarked on individual partnerships with Google to digitize large parts of their book collections: the Bodleian Library, the New York Public Library, the University of Michigan Library, Harvard College Library, Stanford University Libraries, and the University of California (UC) library system. As the press release from UC clearly
shows, the libraries themselves are committing significant resources to the project http://www.universityofcalifornia.edu/news/2006/aug09.html
5. The report (Heritage Preservation, 2005) cites that fully 80 percent of collecting institutions “do not have an emergency or disaster plan that includes collections, with staff trained to carry it out. . . . 70% have no current assessment of the condition of their collections. . . . only 2% of the total annual budget of U.S. collecting institutions was spent on preservation in the last fiscal year” (p. 2). Despite the latter, fully 40 percent report having not even tried to raise funds for preservation of collections they hold “in the public trust” (p. 77).
6. These are all themes raised in reports on developing cyberinfrastructure capacities to support education and research, issued by the American Council of Learned Societies and the National Science Foundation (ACLS, 2006; NSF, 2005, 2006).
8. To illustrate the point, let me take almost at random a recent article from a scientific journal. “The Continuous Plankton Recorder survey, started in 1946, maintains population records on these key microorganisms at the bottom of the ocean’s food chain” (Kintisch, 2006, p. 778). According to Patrick Halpin, a researcher who has used the analysis of fifty years of data from this survey, “historic records are so valuable when you start thinking about [climate] change. There are so many things like that we wished we had done” (p. 778). Not only are longitudinal datasets very important, but the ability to combine them with others is increasingly recognized as fruitful. “As their analyses are getting more sophisticated, marine ecologists considering the impact of climate change are seeking more interdisciplinary approaches and combining different kinds of data more extensively” (p. 778).
10. Except, of course, in those cases in which the context of creation and use are wholly obscure, or the content unintelligible, factors not uncommon in cultural content.
11. Work done to extend primary value could be called preservation as well, but it is more often called information management, digital asset management, or data curation.
12. A rich and accessible description of the role of emotion in information processing and memory formation, incorporating a range of experimental findings, can be found in D’Amsio (2000).
13. One example is the recent EU Recommendation (24 August 2006), building on a previous EU Resolution (25 June 2006), that calls for member states to digitize content and preserve born-digital; it cites the existence of legal mandates already in place to deposit digital content into repositories. http://europa.eu.int/information_society/activities/digital_libraries/index.htm.
14. This is a topic that Joseph L. Sax investigates in his book, Playing Darts with Rembrandt (1999). While he makes the case only in reference to “cultural treasures” such as famous works of art, I would argue that the case for cultural content is the same. Obviously, in light of the Sarbanes-Oxley regulation that is leading to large-scale destruction of corporate records, this area should come under consideration as well.
15. Carl Fleischhauer kindly provided me with this source.
16. For the full history of the Act, see http://www.loc.gov/film/filmabou.html.
18. A recent study by Tim Brooks (2005), for example, “finds that most U.S. historical sound recordings have become virtually inaccessible—available neither commercially nor in the public domain. According to the report, the rights to 84 percent of historically significant recordings made in the United States between 1890 and 1964 are still owned by someone and are therefore protected by law. For most pre-1972 recordings, protection comes in the form of state, not federal, law until 2067. Because recordings cannot be copied and distributed without permission of their rights holders, the only legal way to obtain a CD of a pre-1972 recording is through a reissue. Yet the study found that rights holders have reissued—or allowed others to reissue—on CD only 14 percent of the pre-1965 recordings they control. Thus, most historically important sound recordings are available for
hearing only through private collectors or at research libraries that collect our audio heritage and have the equipment to play obsolete, often frail recordings.

REFERENCES


of long-term value. Director of programs at the Council on Library and Information Resources until 2005, she has also worked at the Library of Congress managing programs relating to preservation of and access to cultural heritage collections. She is currently working with several universities on identifying content of long-term value, understanding various risk factors to its persistence, and analyzing organizational strategies for its long-term access.

She holds a doctoral degree in history from Harvard University and has taught at Harvard and Johns Hopkins Universities. Her recent publications include: *Access in the Future Tense, New-Model Scholarship: How Will It Survive?, Strategies for Building Digitized Collections; The Evidence in Hand: Report of the Task Force on the Artifact in Library Collections;* and *Authenticity in the Digital Environment.*
Abstract
Archivists and librarians play a critical role in preserving and making accessible cultural resources, but there is now an uncertainty as to whether their traditional expertise is sufficient when dealing with digital resources. A particular focus of concern is the authenticity of these resources. This article looks at how the concept of authenticity has been constructed in traditional environments, and specifically by philosophers, art conservators, textual critics, judges, and legislators. It is organized around three broad definitions of authenticity: authentic as true to oneself; authentic as original; and authentic as trustworthy statement of fact.

The examination of these definitions of authenticity and their interpretation in different contexts suggests that authenticity is best understood as a social construction that has been put into place to achieve a particular aim. Its structures and goals vary from one field to the next and from one age to another. The article concludes that digital resources are comparable to traditional cultural resources such as art works, literary texts, and business records; they are in a continuous state of becoming and their authenticity is contingent and changeable.

Introduction
The digital medium is becoming the preferred environment in which to create materials that will become a part of our historical and cultural legacy. Although there are structures in place to help ensure the preservation of these resources in the traditional formats of parchment and paper,
the most recent shift in the technological medium has prompted questions about how the world’s digital heritage can be preserved, protected, and made available for current and future generations. One particular focus of scholarly concern is the authenticity of these digital resources.

The apparent ease with which documents and images can be manipulated in the digital environment has unsettled those whose task it has been to protect the trustworthiness of these materials, namely archives and libraries. On the whole, these institutions have been considered trustworthy repositories; by extension, their holdings are presumed authentic unless proven otherwise (Smith, 2003, p. 181). This trust has been built on centuries of social, cultural, and political negotiations among archives and libraries, their governing bodies, and the public. It is this trust—or more specifically, the conventions for establishing and sustaining this trust—that is now under question. As more holdings become computerized, can the trust that was established in a paper-based environment be sustained? Archivists and librarians have played a critical role in preserving and making available for use cultural resources, but there is now uncertainty as to whether their traditional expertise is sufficient when dealing with digital materials.

Research and reflection on the preservation of authentic digital materials has tended to focus on the identification and elaboration of procedural or technological criteria for assessing and protecting the trustworthiness of those resources. This article takes a different approach. It will explore how the notion of authenticity has historically been used in different ways, in different contexts, and for different ends.

The following discussion of authenticity is organized according to three broad categories that are based on definitions drawn from the *Oxford English Dictionary* (2006): (1) authentic as true to oneself; (2) authentic as original; and (3) authentic as trustworthy statement of fact. The first category has been the focus of philosophers who associate authenticity with a mode of human existence that is generally understood as “being true to oneself.” Because being authentic entails not living in imitation of someone else, what constitutes authenticity is different for each person. The second category—authentic as original—is of great interest to art conservators and textual critics. In the art world, authenticity is no longer about whether an individual is being true to himself or herself, but whether an object is true to its origins. Authenticity here entails a complex consideration of the intent of the artist, the purpose of the object, and the circumstances of its history. Meanwhile, in literary studies, the authentic text is an editorial construction of an ideal, and is thus based on subjective decisions about what the author may have intended, even if those ambitions were never realized. The last category—authentic as trustworthy statement of fact—is a concern of the common law of evidence. Authenticity in this context is associated with the truth-value of re-
cords as reflections of a determinate reality and it revolves around the notion of truth as probability.

What will become clear is that, in each category, authenticity is understood as a social construction that has been put into place to achieve a particular aim. The structures and goals of authenticity vary from one discipline to another and from one age to another. On the basis of these different disciplinary perspectives, the article will propose a more nuanced understanding of authenticity with which to approach the management of digital resources.

**Authentic As True To Oneself: A Human Condition**


Authenticity became the center of many discussions in the eighteenth century, when scholarly attention began to shift to the role of the individual. One of the issues with which philosophers struggled was how an individual could maintain his or her distinctness while living in society. There was some fear that the pressures exerted by societal norms would dilute the individual sense of self that people were thought to possess. Jean-Jacques Rousseau most notably recognized how social interaction could drown out the inner voices of individuals (Rousseau, 1782/1979, 1754/1984; also Herder, 1774–1791/1800). He argued that the desire to be considered worthy by others—pride, or even vanity—can become so overwhelming that people begin to lose contact with who they are as individuals. In this way, worldly pressures and external influences undermine the ability of an individual to focus on developing and sustaining knowledge of him- or herself.

Authenticity, in this sense, is a manner of being. To be authentic is to perceive oneself with clarity by discovering how one ought to be, and to strive to live in accordance with this directive. We each have a capacity for living a life in a way that is specifically our own. Because each individual is endowed with a potentiality that is unique, what constitutes authenticity—how and what it means to actualize that potentiality—cannot be strictly defined. As Charles Taylor (1992) puts it, “There is a certain way of being human that is my way. I am called upon to live my life in this way, and not in imitation of anyone else’s” (pp. 28–29). Authenticity is a way, a mode, a method. It means something different to each individual and therefore is different for each individual.

Through the following centuries, the concept of authenticity was refined and developed in a number of ways. Søren Kierkegaard (1843/1983) notably combined the idea with Christian faith, while Friedrich Nietzsche (1883/1993, 1872/2000) enfolded it into literary narrative. One of the most influential discussants of authenticity in the twentieth century was
Martin Heidegger. Like his predecessors, Heidegger believed that authenticity constituted the human struggle to reach self-recognition and self-understanding. In *Being and Time*, Heidegger attempted to create an ontological system that would identify authenticity and the strategies by which one could achieve an authentic existence.

Heidegger draws attention to the significance of social, cultural, and historical context for the authenticity of being. In contrast to earlier writers who considered the material world to be a distraction from the pursuit of self-knowledge and the authentic life, Heidegger argues that authenticity is inseparable from the world. Authenticity itself is bound up in the same discursive framework as the exploration of self. It is thus contingent upon the particular social and historical circumstances of each person who seeks it, and indeed contingent upon life itself (Heidegger, 1927/1980, II.i.263–264).

Heidegger points out that changes in our environment prompt corresponding changes in ourselves. What it means to be you or me can transform, depending upon our daily experiences. Consequently, what it means to be authentic must change. Authenticity is therefore not an object that can be held, or a condition that can be achieved; the authentic “me” does not exist as a static state of being, but is in a constant process of becoming. Authenticity is thus an anticipation, a process, and a continuous struggle (Heidegger, 1927/1980, II.i.266).

Because authenticity could not be defined with any great detail or rigor, the concept was naturally open to much interpretation and criticism. By the latter part of the twentieth century, it had become a well-worn term in the hands of existentialist thinkers such as Jean-Paul Sartre and Albert Camus. In 1962, Theodor Adorno identified a rupture between the terminology of authenticity and what it was meant to signify. For Adorno, authenticity was no longer communicative as an idea. Divested of any meaning, the notion of authenticity became transcendent, objectified, and idealized. Adorno (1962/1973) writes, “The fallibility of the term is hushed up by the absolute use of the word. . . . [T]he term establishes itself as a linguistic eyrie of totalitarian orders” (p. 8). Adorno argues that the concept of authenticity had become so idealized that any notion of subjectivity that had traditionally been associated with it was lost. He describes the way in which the term authenticity erases the complex negotiations by which it gained any currency, and is replaced by an empty marker that is taken to be an objective standard.

From this brief overview, we should take with us two important and related characteristics of authenticity: contingency and change. Historically situated, authenticity is sensitive to differences in individual cases and contexts, and is therefore necessarily marked by change. The conventions of authenticity are always in flux, responding to changes in the world in which it is embedded. As a consequence, authenticity is itself in a
process of becoming. The following section will further problematize the notion of authenticity by exploring how works of art and literature can be the subjects of multiple and equally valid authenticities.

**Authentic As Original**

4. Original, first-hand, prototypical; as opposed to copied. Obs; 5. Real, actual, Genuine. (Opposed to imaginary, pretended.) arch.; 6. Really proceeding from its reputed source or author; of undisputed origin, genuine.

**Art Works**

In his 1936 essay “The Work of Art in the Age of Mechanical Reproduction,” Walter Benjamin argues that authenticity is crucially linked to the existence of an original work of art. An original work of art has an aura that is made up of the cumulative tradition that runs from its conception to its present state. This aura is specific to the original piece, and constitutes its authenticity. As Benjamin (1936/1968) explains, “The authenticity of a thing is the essence of all that is transmissible from its beginning, ranging from its substantive duration to its testimony to the history which it has experienced” (p. 221). The authenticity of an art object is composed of the identity of the piece, as well as its particular context and history; it is its presence in time and space (p. 220).

In Benjamin’s account of the relationship between authenticity and art objects, the aura of the original defies reproducibility and implies fidelity to the original intentions of the artist and to the passage of time. The question that remains is, how, in practical terms, is that aura to be preserved in the physical work of art? In the world of art conservation, the two dimensions of an original work’s aura are viewed as competing rather than complementary. To restore an art object to its original condition requires that the conservator destroy the evidence of the passage of time on the object; to preserve that evidence, on the other hand, is to obscure the object’s origins and, therefore, the artist’s intentions—what he or she wanted the spectator to see.

The debate within the community of art conservation fuelled by the recent restoration of the Sistine Chapel illustrates the difficulty that art conservators face in attempting to reconcile fidelity to original intentions with fidelity to the passage of time. The restoration of the Chapel, a fourteen-year project that was completed in 1994, raised two fundamental issues: firstly, what were Michelangelo’s original intentions? And, secondly, given the centuries-old history of the Sistine Chapel frescoes, what parts of that history should be preserved?

The first issue—Michelangelo’s intentions—was raised in the context of the radical cleaning of the frescoes on the ceiling of the Sistine Chapel. Defenders of the project maintained that, by removing the “grime of the centuries” (the layers of dirt, soot, glue, and overpaint that had accreted
over time), the cleaning had restored the colors of the frescoes to their original brightness and vibrancy, revealing the Sistine ceiling as Michelangelo himself saw it and as he intended the spectator to see it (Brandt, 1987, 1993). Critics of the cleaning, however, insisted that what the conservators pejoratively termed “grime” constituted an integral part of Michelangelo’s creation. Moreover, James Beck and Michael Daley (1993, pp. 63–102) rejected the conservators’ contention that the glue paint on the ceiling was the work of earlier restorers, arguing that Michelangelo himself had deliberately added this layer on top of the original frescoes to reduce the effect of color and to create an illusionistic scheme that relied on shadow to achieve the overall perceptual effect. By stripping away all the layers of toning paint down to the frescoed plaster, they contended, the conservators had stripped the frescoes of intentionality.

The second issue—determining what parts of the history of the frescoes should be preserved—emerged in connection with the restoration of the fresco of the Last Judgment by Michelangelo, which decorates the wall behind the high altar in the Sistine Chapel. When it was first unveiled in 1541, the Last Judgment provoked immediate controversy. The Congregation of the Council of Trent declared it to be full of “indecent nudes” and “a thousand heresies”; on January 21, 1564, the Council issued a decree ordering that those parts of the fresco that were deemed obscene be covered. Between 1565 and 1566, twenty-three of the nude figures were covered in loincloths; in subsequent centuries, another eighteen were added, and in the nineteenth century, the total number of loincloths reached forty-one (Mancinelli, 1997, pp. 172–175; Colalluci, 1997, p. 194).

During the restoration project, these so-called “censorial draperies” were the subject of considerable debate among conservators. Some argued that all the draperies should be removed, while others argued for their complete preservation on the grounds of their historical value. In the end, most of the loincloths that were documented to have been added after 1750 were removed. Gianluigi Colalluci, the Chief Restorer of the Vatican Museums at the time of the restoration, explained the rationale for the decision in the following way: “The censorial interventions of the sixteenth century were conserved, because they were considered historical documents of real importance to the Council of Trent and the Counter-Reformation. Later draperies were generally removed, because they were not seen as historical documents, since nothing survives to indicate the source of the decision to add them” (1997, p. 197). The conflicting intentionalities that intersect across Michelangelo’s work in the Sistine Chapel are a part of the tradition of authenticity discussed by Benjamin. But in the example described above, part of this tradition is deemed to be inauthentic.

The issues that emerged in the course of the restoration of the Sistine...
Chapel highlight what David Lowenthal (1986) refers to as “the all-too familiar perplexities” surrounding the determination of intentionality, including:

How to ascertain or adjudicate conflicting evidence about a long-gone author’s aim; which individual or epoch to adhere to in a work of multiple authorship, prolonged creation, or massive restoration; how to convey original aims when aging or accident have irreversibly altered a work of art or when modern experiences and expectations render the artist’s aim outre or banal. . . . Indeed, to communicate any past intention it must be revised in the language of the present, and to that extent rendered inauthentic. (p. 844)

These perplexities are inevitable because the surviving evidence of authorial intentionality is limited and ambiguous. The competing claims concerning Michelangelo’s intentions, for example, are based on very little evidence about what those intentions might have been; little is known about Michelangelo’s actual working method. Furthermore, since all his surviving frescoes are in the Sistine Chapel and the adjacent Pauline Chapel, it is impossible to compare those frescoes with others by him that might have survived under “less dirty” conditions than those in the Vatican (Colalucci, 1997, p. 192).

Moreover, even if Michelangelo’s intentions could be known, some critics maintain that they would still need to be balanced against subsequent intentions that have transformed his art work over time. Joseph Grigely (1995), for example, argues: “The very idea of the artist’s intentions being a locus of conservation efforts cannot substantiate itself among the conflation of different intentions of different participating authorities at different times” (p. 87). Any work of art is subject to what he calls “continuous and discontinuous transience”—variation, drift, rupture—and this transience is as integral to the authenticity of a work of art as the original intentions of the artist. The late twentieth-century restoration of the Sistine Chapel is, itself, one such act of transience. In the eyes of some critics, the conservators’ rationale for retaining the Counter-Reformation draperies is inconsistent with the overall rationale for the Sistine restoration project, which was the recovery of Michelangelo’s intended work.10 Grigely, on the other hand, maintains that, “however inconsistent this is, it shows how the conservation treatment itself is yet another act of historical transience, one that neither more nor less than previous treatments reflects the ideologies and intentions of those interacting with the work” (1995, p. 69). Like Benjamin, Grigely believes that the particular history of the art work, here including acts of conservation, are a part of the aura and the tradition of authenticity that accumulates around the original object.

Grigely’s observations make clear that a work of art is not necessarily fixed at a single point in time; its survival and ongoing preservation mean
that, in an important sense, it is in a continuous state of becoming. As the piece of art ages, it is resituated and recontextualized. Moreover, if we accept that a work of art supports different intentions over time, we must also admit the possibility that such work can possess different authenticities over time. If that is the case, the authenticity of an art work, like Heidegger’s authenticity of self, can only be understood within an ever-changing discursive framework. Thus, the authenticity of the art work is also necessarily in a continuous state of becoming. The “authentic” art work, in other words, does not exist outside of the discursive framework of conservation theory and practice. By these lights, conservators do not preserve or restore the authenticity of an art work so much as they construct and reconstruct that authenticity in accordance with their understanding of the nature of art works and current conventions for treating them. That understanding is shaped, in turn, by the role of museums in the preservation of cultural heritage, and their role also changes over time.

Seeing the authenticity of an art work as a contingent and changeable construct of art conservators and museums, rather than a quality that inheres in the art work itself, does not result in the surrender of belief in authenticity as a rationale for the conservation of art works; it simply indicates the need to historicize the meaning of authenticity and reposition it in relation to the nature and purpose of art conservation. It also calls attention to the need to resist the temptation to elevate authenticity to an idealized and objective standard that transcends history and contingency. It was just such elevation that, according to Adorno, had emptied the concept of meaning in the last century.

**Literary Texts**

Like art conservators, textual critics disagree about the relative authority of original and subsequent intentions in establishing the authenticity of a literary text. The disagreement is manifested most strikingly in the different objectives underlying the two major approaches to the scholarly editing of modern texts. In the “authorial” school, the original intention of the author is the prevailing consideration in assessing the authenticity of texts; it simply indicates the need to historicize the meaning of authenticity and reposition it in relation to the nature and purpose of art conservation. It also calls attention to the need to resist the temptation to elevate authenticity to an idealized and objective standard that transcends history and contingency. It was just such elevation that, according to Adorno, had emptied the concept of meaning in the last century.

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Textual criticism has its origins in the historical criticism of biblical and classical texts. There are no autograph manuscripts of the classical authors; any copies that were written in hands of the authors have been
lost. As a consequence, there is little evidence from which to reconstruct their intentions. Classical philologists thus seek “to recover, or approximate by historical reconstruction, the lost original works of ancient authors” (McGann, 1983, p. 23). To do so, scholars rely on versions of the texts in manuscripts that were copied subsequent to the composition of the original text. These manuscripts are of varying quality, having been subject to physical deterioration, errors in transcription, or even deliberate modification. The work of many early philologists involved establishing the relationships of the manuscripts, and examining and emending their texts according to the dominant reading or to the earliest known copy of the text. The appeal to the earliest copy as the most authentic witness of a text is based on the assumption that the closer the manuscript is to the lost original, the less likely it is to have been exposed to corruption. As we shall see in the next section, this same logic is used in the process of fact-finding in law.

The emphasis on the intentions of the author is continued in the criticism of modern literary texts most robustly by the Anglo-American school of “eclectic” critical editions. Like their counterparts who study classical texts, the goal of these critics is to reconstruct the text as it was intended by its author. As Jerome McGann (1983) explains:

The idea of a finally intended text corresponds to the “lost original” which the textual critics of classical works sought to reconstruct by recension. Both are “ideal texts”—that is to say, they do not exist in fact—but in each case the critics use this ideal text heuristically, as a focusing device for studying the extant documents. Both classical and modern editors work toward their ideal text by a process of recension that aims to approximate the Ideal as closely as possible. (p. 56)

The difference between the scholar of classical texts and the modern critic is, according to McGann (1983), that the modern critic “actually possesses the ‘lost originals’ [in the sense of extant authorial manuscripts], which the classical critic is forced to hypothesize” (p. 57). Consequently, the modern critic’s concept of an ideal text is “a pure abstraction, whereas the classical critic’s ideal text remains, if ‘lost,’ historically actual” (p. 57). The difference is attributable to the fact that critics working within the modern eclectic tradition believe that the medium of literature is the words of a language, not the physical carrier of those words; a literary work is thus physically non-specific, existing in multiple artifacts but not located in any single instantiation. Thus, the ideal text that the eclectic critic reconstructs is a material artifact that seeks to approximate the abstract work (Tanselle, 1989, pp. 25–30).

The eclectic theory of critical editions posits that the final intentions of the author are, inevitably, corrupted by transmission: copy editors alter the author’s punctuation and spelling; friends and relatives revise typescripts and page proofs; publishers subtract and add material to new
editions, with or without the author’s permission; authors themselves obsessively correct and revise their texts, sometimes in contradictory ways, sometimes in response to external pressures, and so forth. Thus, the task of the textual critic is to reconstruct, from among the many “corrupt” variants of a literary text that have existed over time, the authentic text, namely, the one that best embodies the final intentions of the author. The text is then contextualized through the preparation of a critical apparatus, which contains notes and commentary on the text, the history of its variants, as well as the chronology of the life and works of the author.

A brief enumeration of some of the variant versions of *Ulysses* by James Joyce that were in circulation between 1918 and 1936 illustrates the challenges textual critics face when attempting to reconstruct the finally-intended text through an eclectic critical edition. Included among those versions are: five sections of the novel that appeared in *The Egoist* in 1919; parts of the book that appeared in serial form in *The Little Review* between 1918 and 1920; draft versions of earlier sections of *Ulysses*, given or sold to well-wishers by Joyce during that same time period; a significantly revised and corrected copy of the versions sent to the two magazines that was supplied by Joyce to Maurice Darantière, the printer contracted by Shakespeare and Company, which was the publisher of the first limited edition of *Ulysses*; the first limited edition of *Ulysses* published in 1922 and, according to Joyce, replete with printer’s errors; a second limited edition brought out later the same year with an errata page listing emendations by Joyce but still plagued with errors owing to Joyce’s poor eyesight; a 1924 Shakespeare and Company unlimited edition containing additional “corrections”; a 1922 and 1923 Egoist Press limited edition; a holograph manuscript of *Ulysses*, which Joyce had sold to a New York lawyer who had, in turn, auctioned it off in 1924 to a Dr. A. Rosenbach; an Odyssey Press edition that appeared in Hamburg in 1932, having been shepherded through the press by Joyce’s friend Stuart Gilbert; a 1935 Limited Editions Club version, with illustrations by Matisse and “corrections suggested to Mr. Gilbert by James Joyce himself”; the first unbanned American edition published by Random House in 1934; and the Bodley Head edition brought out in 1936 that had been proofed by Joyce the previous summer. From these and later versions, and by drawing on additional sources such as letters and diaries, the textual critic is expected to reconstruct the authentic, ideal *Ulysses*—that is, the one that embodies Joyce’s final intentions most clearly.

Eclectic critical editions thus aim to reconstitute an “original” text that never existed except, perhaps, in the mind of the author. G. Thomas Tanselle (1989), a staunch defender of eclectic editing, maintains that, even if an ideal text never physically existed prior to its reconstitution in an eclectic edition, the inferred authorial intentions that shape it have as legitimate a claim to historical reality as do the texts that were finally
published; he concedes, however, that these intentions are more difficult to locate: “If we grant that authors have intentions and therefore that the intentions of past authors are historical facts, we require no further justification for the attempt to recover those intentions and to reconstruct texts reflecting them, whatever our chances of success may be” (p. 76). Tanselle’s comments make clear that for textual critics working in the tradition of eclectic editions, the authentic text is the one that reveals the single, creative mind that provided the impetus for the literary work: the mind of the author. From their perspective, restoring the text to an imagined historical moment before the onset of corruption is the way to reveal that mind.

By contrast, textual critics who adopt a sociological approach to the editing of literary texts hold a different view on the value of the intention of the author. Influenced by the theories of Jacques Derrida (1982), Stephen Mailloux (1982), Michel Foucault (1984), and Roland Barthes (1977), who rejected the notion of determinate meaning and questioned the importance of the author in the interpretation of texts, these scholars eschew the eclectic approach to textual criticism and shift interpretative authority onto the reader. From their perspective, “texts are produced and reproduced under specific social and institutional conditions and hence . . . every text, including those that may appear to be purely private, is a social text” (McGann, 1991, p. 21). The interpretation of texts is not closed, but rather is an open-ended conversation among author, editor, publisher, and reader.

The implications of this perspective can be summarized as follows: the production of a literary text is not the individual endeavor of an author but a collaborative enterprise between and among the author, editors (including the editors of critical editions), publishers, and readers; variant versions of a text are not “corruptions” to be eliminated but, rather, legitimate textual formations worth studying in their own right; the meaning of a literary text is shaped not only by its “linguistic code” (i.e., its language) but, also, by its “bibliographic code” (i.e., its physical embodiment and context); finally, the primary task of the textual critic is not to reconstruct authorial intentions through the establishment of a single definitive text but, rather, to reveal the complex and open-ended histories of textual change and variance through the presentation of multiple texts.

Textual scholarship in the wake of McGann and others emphasizes the instability of texts, foregrounding:

The cause of contingency in the double sense both of the text itself being historically contingent, in its circumstances of production and reception, and of it being contingent in its (re-)construction in the present. Such considerations work against conceptualizing the text as an ahistorical transcendent monument, or even as a transhistorical one, and instead promote a view of it as historically situated both in its original creation and in its later constructions. (Bornstein, 1993, p. 2)
Some sense of what is entailed in the idea of textual instability is provided by Hans Walter Gabler’s synoptic and critical edition of Joyce’s *Ulysses* published in 1984. The edition is arranged with Joyce’s manuscript text (the synoptic edition) running consecutively on the edition’s left-hand pages, or versos, with a parallel reading text (the critical edition) running consecutively on the right-hand pages, or rectos. The verso pages show the text in various stages of composition while the recto pages show the critically established text, or, the text at its “ultimate level of compositional development” (Gabler, 1984, p. 1903). The editorial judgements on which the established text is based are defended in the footnoted apparatus and the appended textual notes.

The most innovative feature of the edition is its synoptic presentation of *Ulysses* as it moves from manuscript to print (Gabler, 1984, p. 1901). The “continuous manuscript” text is displayed synoptically by a diacritical system of notation that analyzes its layers of growth. The dynamics of textual development (i.e., the continuous process of writing and rewriting) are symbolized as deletions, additions, and replacements; additional symbols show at what stage in the composition process the revisions were carried out and where in the manuscript material they are located (Gabler, 1984, pp. 1901–1903). In this way, the link between text and apparatus is made visible and explicit to the user.

The side-by-side placement of the synoptic and established texts also allows the reader to observe the process by which one reading is marginalized by another (McGann, 1985, p. 300). The marginalized reading of the synoptic text is not erased by the dominant reading of the established text. Rather, the two readings are situated historically in relation to each other. As a result, the marginalized and dominant readings may be seen simply as two different readings, rather than as “error” and “correction” (McGann, 1985, p. 300). Moreover, by laying bare both Joyce’s compositional process in the synoptic text and the editors’ own judgements and choices in constructing the established text in the footnoted apparatus and appended notes, Gabler’s *Ulysses* exposes the inevitable limits of any edition and reveals the possibility of alternative constructions of a literary text. Gabler’s synoptic text reflects one history of *Ulysses*—a history of its initial composition and evolving linguistic code. An alternative synoptic text might reflect, instead, a history of the initial production and evolving bibliographic code of *Ulysses* (McGann, 1985, p. 292). The possibility of alternative constructions suggests, in turn, the possibility of multiple authenticities that are based on the specific set of determinants under which an edition is prepared. Authorial intention is not abandoned as a rationale for the reconstruction of a literary text; it simply loses its status as the only legitimate rationale.

The debates about authorial and sociological approaches to the reconstruction of literary texts reflect changing perspectives about what con-
stitutes the “authentic” text, and serve to reinforce themes that emerged in the foregoing discussion about the restoration of art works: a growing awareness of the ambiguity of authorial intentions and the instability of literary texts; an increasing understanding that the authentic literary text is not shaped by authorial intentions so much as it is constructed by a particular editorial theory of authorial intentions; a movement away from the language of “purity” and “corruption” when speaking about authenticity; and a recognition of the presence of multiple intentionalities in a literary text that endures over time. As George Bornstein (1993) observes, textual critics are coming to understand that, “we cannot hope through textual scholarship to recover an ideal text like a well-wrought urn, but only to increase the self-awareness and internal consistency of the choices that we make in constituting the [literary text] for our own time” (p. 2).

AUTHENTIC AS TRUSTWORTHY IN THE EYES OF THE LAW: BUSINESS RECORDS

3.a. Entitled to acceptance or belief, as being in accordance with fact, or as stating fact; reliable, trustworthy, of established credit.

The association of authenticity with the trustworthiness of records as statements of fact is embedded in the law of evidence in common law jurisdictions. Such association is located specifically in the rules governing the admissibility of business records. The legal criteria for assessing the trustworthiness of business records are similar in certain respects to the criteria for establishing the authenticity of art works and literary texts. Like art conservators and textual critics, judges and legislators are concerned with issues of fidelity. Unlike art conservators and textual critics, however, judges and legislators deal with pragmatic texts—records—that are assumed to reflect facts or events in the external world. The trustworthiness of a record as a statement of facts, therefore, rests primarily on its fidelity to an original event, namely, the event that gave rise to the record, rather than on any fidelity to an actual or constructed original artifact or text.15

Evidence law comprises the whole of the rules and principles that regulate the relevancy, admissibility, and weight of evidence in judicial proceedings. The purpose of such proceedings is to resolve legal disputes by establishing the truth of conflicting allegations; in other words, to discover “what really happened.” However, as Mark Cousins (1993) observes: “Really” is used in a specialised sense. “Really” is what is relevant to the law, what is definable by law, what may be argued in terms of law and evidence, what may be judged and what may be subject to appeal. “Reality” as far as the law is concerned is a set of representations of the past, ordered in accordance with legal categories and rules of evidence into a decision which claims to rest upon the truth. But this truth of the past, the representations of events, is a strictly legal truth. (p. 132)
In the discussion that follows, we shall see how the legal interpretation of the trustworthiness of records is inextricably linked to the understanding of truth that is operative in the fact-finding process.

The contours of that truth are established at the outset by the rules governing the relevancy of evidence. Before evidence is admitted, it must be demonstrated that it is relevant, meaning that it bears directly upon the point or fact in issue and proves, or tends to prove, an alleged proposition. The legal notion of relevancy derives from the theory of logical relevancy, the first principle of which states,

knowledge of facts is always a matter of probabilities. We may acquire knowledge of matters of fact by drawing inferences from evidence, but these inferences can only alter the probability that some fact does or does not exist and can never establish with certainty that some fact does or does not exist. (Wigmore, 1983, vol. 1A, § 37.4)

Truth, by these lights, is defined as an acceptable degree of rational belief or “moral certainty” (Shapiro, 1991, pp. 7–8). The truth of any proposition is based on reasoning from the relevant evidence and measured, not in terms of absolute certainty, but rather in terms of probability, which will always be a matter of degree.

Inferences rest on generalizations—also known as evidential hypotheses—which are based on common sense experience or logic. Such generalizations assume the form of “relative frequency statements” which assert that an existent fact (i.e., the evidence) makes more or less probable the hypothetical fact (i.e., the alleged proposition) (Wigmore, 1983, vol. 1A, § 37.4).

Of course, any generalization, when applied to specific cases, necessarily possesses “a potential range of indeterminacy”; events are always inherently distinctive and a generalization is bound to be only a partial description of characteristics and tendencies that are to be found in reality (Wigmore, 1983, vol. 1A, § 37.7 at 1078). The “range of potential indeterminacy” that is inherent in all inferences and generalizations is not ignored by evidence scholars. Wigmore (1974), for example, points out that, while in some cases a generalization is “more a fiction than a fact,” it is, nevertheless, “a fiction which we can hardly afford in our law openly to repudiate.” (vol. 5, § 1632). To function effectively as a societal mechanism for dispute resolution, the legal system requires at least the appearance of determinate and generalizable meanings and a minimum of ambiguity.

The determination of what constitutes relevant evidence revolves around a number of questions. Did an event occur or not? Do reports or allegations that an event has occurred correspond to the best evidence of the existence of such an event? Who and what are responsible for it? What are the lines of causality to be drawn in respect of the event? What degrees of responsibility do or can particular persons bear? (Cousins, 1993, p.
132) Given the centrality of the event, it is not surprising, therefore, that a key assumption of the law of evidence is that a piece of information is more likely to be true if it was produced close to the events that gave rise to the legal proceedings. Kim Lane Scheppele (1998) describes this as the “ground-zero” theory of evidence. According to that theory, “The reliability and relevance of knowledge . . . are thought to lessen with distance in time and space from the original event. And reliable and relevant knowledge is the essential ingredient in the determination of truth” (p. 323). The ground-zero theory is reminiscent of the theory of the lost exemplar that is used in classical philology. Both theories assume that evidence generated closer to the original event is more accurate than evidence that was generated later.

As Scheppele (1998) makes clear, the ground-zero theory is problematic for a couple of reasons. First, the notion that it is possible to recover the “original purity” of an event is fraught with epistemic frailties:

The idea about truth . . . is precisely that . . . one can find somehow untainted or “raw” description that then gets tainted or “cooked” in subsequent retellings . . . [However], as Ludwig Wittgenstein reiterated perhaps most powerfully, seeing is never pure in the first place, but is always “seeing as.” In other words, the first version of events also has a perspective embedded in it, like with any other version of events. (pp. 333–334)

Moreover, because the theory assumes that relevant knowledge is concentrated at ground zero, it tends to deem irrelevant the broader social context for that event even though that context might provide a more adequate causal account of the event. In this way, the law of evidence privileges certain kinds of truth-claims while marginalizing others.

The principles of logical relevancy and the ground-zero theory of evidence are well illustrated in the legal rule that deals specifically with the trustworthiness of business records as statements of fact. This rule is called the business records exception to the hearsay rule. Business records are considered to possess what Wigmore (1974) calls “a circumstantial probability of trustworthiness.” The generalizations offered in support of that probability are threefold: firstly, the habit of making such records with regularity will prevent casual inaccuracies and counteract any temptation to misstatements; secondly, since the records are part of the regular course of business, an error or misstatement is almost certain to be detected; and, thirdly, if the persons who make the record are under a duty to an employer, they risk censure or dismissal for making inaccurate records (vol. 5, § 1522). The potential range of indeterminacy that affects these particular generalizations stems from the fact that they are based on the presumed record-keeping practices of a specific type of bureaucracy, that is, one characterized by a hierarchical authority structure and close super-
vision. However, such generalizations may not be translatable to records generated in bureaucracies that do not conform to this type.

The business records exception treats a record as a testimonial assertion of the facts contained in it. In keeping with the ground-zero theory, the trustworthiness of that testimony depends on the proximity of the witness (i.e., the author of the record) to the event in question (i.e., the facts stated in the record). Accordingly, a business record is admissible if it meets the following conditions: it was made in the usual and ordinary course of business; it was made at or near the time of the act, transaction, occurrence, or event being recorded; the person who observed the event and the person who recorded it were both acting under a business duty to observe that event and record it; and neither the observer nor the recorder had any motive to misrepresent the information in the record (Wigmore, 1974, vol. 5, § 1523–1530).

The exception assumes that an objective reality is retrievable through subsequent representations of it and that there exists a straightforward and stable relationship between a representation (a record) and its referent (a pre-existent reality). Thus, a record that satisfies the conditions of the rule is taken to be an accurate reflection of that original event, free from the corruption of interpretation on the part of the observer and recorder. The apparent absence of overt interpretation provides the illusion that the record not only conveys fact, but is the embodiment of fact.

However as we have already seen, the notion that any account of an event can be free of interpretation is erroneous. Even if some idea of the original event is retrievable through the record, the report itself does not exist outside of signification; it is filtered through a certain perspective. The record cannot be read transparently, for its writing is shaped by particular constraints that may remain invisible to us. In this respect, records are similar to art works and literary texts. That is, they are susceptible to multiple interpretations and could be said to possess multiple authenticities, depending on the circumstances of those interpretations.

The inferences and generalizations about what makes a business record trustworthy in the eyes of the law are thus partial in two senses: they are incomplete and they are also biased in favor of a particular perspective. This does not mean that these inferences and generalizations are necessarily invalid. It simply means that they reflect only one interpretation about the nature of records and bureaucratic record-keeping procedures. That interpretation is grounded in a presumed correspondence between a record and the reality it purports to represent; a presumption that reflects perhaps more than anything the legal system’s need for stable and determinate referents.

Once a record has been admitted for consideration by the tribunal, its trustworthiness is tested again through examination and cross-examination. It is assumed that any weaknesses or deficiencies in the records that
were overlooked at the admissibility stage will be exposed upon cross-examination. Such assumption reflects the common law’s faith in the adversarial process and its practice of cross-examination as the most effective means of establishing the trustworthiness of evidence in general and records in particular. In an adversarial process, the facts of the case are provided to the fact finder in the form of two alternating one-sided accounts. According to Dale Nance (1988), “a principal justification for the adversary process is that the self-interest of the parties will bring about a thorough investigation and vigorous clash of evidence from which the relatively detached trier of fact will best be able to discern the truth” (p. 235). The process of truth-discovery is symbolized here as a modern version of the medieval trial by battle.

Responsibility for weighing the evidence rests with the trier of fact, typically, a lay jury. The weight of evidence refers to the believability or persuasiveness of evidence in supporting one side of a factual issue rather than the other (Black, 1990, s.v. weight of evidence). In assessing the weight of records, the jury must take into account their trustworthiness, not only in relation to the facts they are supposed to embody, but also in relation to other facts admitted in evidence. For that reason, a record may be deemed more trustworthy in one context and less trustworthy in another; its truth-value may shift as it is repositioned and recontextualized in relation to different sets of facts.

In recent years, evidence scholars have questioned the legal system’s faith in the adversarial process as an effective means for testing the trustworthiness of evidence. The practice of allowing two adversaries to control the development of evidence at trial, for example, has been criticized by Nance (1988), who maintains that the evidence that is most advantageous to the litigant who is determined to win a trial does not always coincide with the evidence that a jury would find most helpful in the resolution of the factual issue. In other words, the “strategically best” evidence does not always coincide with the “epistemically best” evidence (p. 240). Nance’s criticism is indicative of a growing recognition by evidence scholars that the presentation of evidence cannot escape theoretical shaping. Evidence is not simply presented to the tribunal for consideration; it is selected and shaped by the parties to conform to a particular narrative about what happened and why. This view of the fact-finding process is reflected in Richard Gaskins’ (1992) observation that, while “legal issues are nominally about facts,” in practice, they are more accurately characterized as “contests of persuasion concerning indeterminate matters” (p. 26).

It is not only the opposing parties who mold the evidence to fit a particular narrative; the evidence is also subjected to theoretical shaping by the lay jury in the process of weighing the evidence. The legal system’s faith in the lay jury is grounded in a belief in the principle of “universal cognitive competence,” which asserts that every normal and unbiased
person, given a proper presentation of all the relevant evidence about any factual issue, will come to the same conclusion about it. According to Jonathan Cohen (1977), the principle presupposes that when individuals assume the role of jurors, they come equipped with a stock of commonly accepted generalizations about human behavior, as well as an awareness of the kinds of circumstances that either favor or oppose the application of such generalizations (p. 274).

The belief in a universal cognitive competence, however, does not accord with the understanding of human cognition that has emerged from research in several disciplines, among them philosophy of science, psychology, artificial intelligence, and literary theory. That research suggests that “it is impossible to see the world except through a lens shaped by our world experiences, culture and internal knowledge structures . . . the observer is not separate from the system being studied and . . . the act of observation or measurement alters the thing observed” (MacCrimmon, 1990, vol. 1, pp. 347–348). Empirical research by cognitive scientists into the juror decision-making process specifically suggests that jurors do not begin with objective knowledge and make reasoned inferences from the evidence based on a universally available stock of knowledge about the common course of events. Instead, they actively organize, elaborate, and interpret the evidence during the course of the trial into a narrative form. To interpret the evidence and fill in gaps, they use “schemas” or theoretical constructs, based on their individual experiences and background assumptions (Pennington & Hastie, 1986, pp. 242–258; Jackson, 1996, pp. 318–319). Drawing on this research, some evidence scholars argue that it is not possible for jurors to determine the truth of what happened; the best they can do is to fit the evidence to a theory or story about what happened (Jackson, 1988). Other evidence scholars, while accepting that theoretical constructs of various kinds shape and structure the juror’s perception of the evidence, maintain that the obverse is also true, that is, the theoretical shaping of evidence is dependent on events or states of affairs that are accepted as genuine facts (Tillers, 1988). Although the recent evidence scholarship reflects differing perspectives on the relationship between evidence and theory, there is general agreement on one point, namely, “that evidence may be partitioned in different ways and that how we partition and see evidence depends on the theoretical perspectives with which we approach it” (Tillers, 1988, p. 317).

The themes that have emerged in the course of this discussion echo themes we have encountered in earlier sections. Firstly, the notion of an authentic record in evidence law (in the sense of a trustworthy statement of facts), like the notion of an authentic art work or literary text, is shaped to a considerable degree within a specific social and institutional framework; its authenticity does not inhere in the record itself but is actively constructed in accordance with the theoretical and methodological as-
sumptions operative within that framework. Viewed from this perspective, the legal rules of evidence may be described more accurately as “socially constructed narratives” (Jackson, 1988, p. 3). The business records exception, for example, constitutes a narrative about bureaucratic record-keeping practices, one that is contingent upon a particular view of bureaucracy. Secondly, within the fact-finding process itself, the notion of what constitutes a trustworthy record is not fixed and stable; it shifts as it is resituated and recontextualized in relation to other facts and evidence. This suggests that records, like art works and literary texts, are open to different interpretations and, thus, different authenticities, depending on the interpretive framework. The notion of what constitutes a trustworthy record in the eyes of the common law is shaped by a particular perspective on the nature of truth and the best means of discovering it. It does not, in principle, undermine alternative notions of what makes a record trustworthy that may be shaped by different perspectives.

**AUTHENTICITY AND THE PRESERVATION OF DIGITIZED AND BORN-DIGITAL RESOURCES**

As we have seen, authenticity is a social construct that has been employed by a number of disciplines to help structure their particular environments. We have examined how being authentic can mean responding in our own individual ways to the everyday changes in the world; we have discussed how conserving an authentic work of art necessarily entails the erasure of one of the many traditions that intersect across the original, all of which could be deemed crucial to its authenticity. We have seen how the identity of a definitively authentic text can be problematized; and we have explored how the legal notion of what constitutes a trustworthy record privileges certain kinds of truth-claims while marginalizing others. By looking across the disciplines, we have discovered that authenticity itself is a creature of circumstance. What it means to be authentic continues to change, and the parameters and content of authenticity are always under negotiation. Authenticity provides a semblance of stability and a mode by which each disciplinary area can function.

The digital environment resists the imposition of traditional structures of stability because it dramatically accelerates the process of change. It is precisely this dynamic characteristic of digital technology that has been the source of anxiety for librarians and archivists. To be sure, they are accustomed to change of other sorts. For instance, paper deteriorates naturally, but its slow process of deterioration affords a semblance of stability that is absent from the digital medium. Although librarians and archivists have never exercised absolute control over the natural deterioration of parchment and paper holdings, these resources can and have been declared authentic. In a similar way, librarians and archivists cannot exercise absolute control over how different computers running different software
will render their digital holdings over time. This failing does not mean that there is no structure by which to preserve these resources, by which trust could be garnered, or by which authenticity could be invoked, but rather that the criteria for assessing the authenticity of digital materials must tolerate a range of variability befitting the situation. In the same way that the criteria for assessing the authenticity of traditional materials account for the transformative effects of time, such as the natural decomposition of paper, so too should the criteria for assessing digital materials acknowledge the inevitability of change.

The preservation of “authentic” digital materials is perceived to have been made more difficult by the technology itself, which promotes the proliferation of multiple and simultaneous instantiations. For which of these instantiations falls under the responsibility of the librarian or archivist, and what constitutes its authenticity? Because these questions cannot be answered with any specificity, the management of digital materials may involve shifting the prevailing attitude from an approach that is characterized by constriction to one of expansion.

As we have discussed, it has been the scholarly tradition to trace the lineage of art and text to identify their variants, and the work of librarians and archivists has been to support this endeavor. However, this enterprise no longer has the same value when applied to digital materials. Digital resources may now be copied endlessly with no discernible loss of quality. As W. J. Mitchell (1992) observes:

In general, computer files are open to modification at any time, and mutant versions proliferate rapidly and endlessly. . . . So we must abandon the traditional conception of an art world populated by stable, enduring, finished works and replace it with one that recognizes continual mutation and proliferation of variants. (pp. 51–52)

There is no final act of closure in the digital environment that corresponds to the traditional notion of “publication,” indicating the final, finished piece. Rather, the “publication” of a digital work might entail the opposite—that it is now open and ready for the copying.

In his discussion of digital images, Mitchell (1992) argues that it might be more useful to understand these materials as allographic rather than autographic; namely, digital images, because they are digital, enable and encourage duplication. The same could be said for most digital resources that fall under the purview of librarians and archivists. He writes:

We might best regard digital images, then, neither as ritual objects (as religious paintings have served) nor as objects of mass consumption (as photographs and printed images are in Walter Benjamin’s celebrated analysis), but as fragments of information that circulate in the high-speed networks now ringing the globe that can be received, transformed, and recombined like DNA to produce new intellectual structures having their own dynamics and value. (Mitchell, 1992, p. 52)
It is part of the character of these resources to be copied and reinterpreted in different contexts. Thus, if one of the qualities of digital materials is to be allographic, that is, to enable copying and manipulation and to be used in different ways and for different purposes, this aspect may need to be accommodated in the process of preservation.

In addition to the allographic nature of digital resources, which involves multiple and simultaneous intentionalities, also brought to the fore is their polysemic character. That is, in addition to their ability to support multiple and simultaneous intentionalities, they also encourage multiple, simultaneous, and possibly dissonant meanings. For instance, the debate about authorial and sociological approaches to textual criticism has resulted in an expansion of the boundaries of editorial theory and exercised a substantial influence on the way scholarly editions are envisaged and prepared using digital technologies. The vision of scholarly editions presented by proponents of the sociological approach to textual criticism emphasizes variability over fixity of meaning, open-ended representation over closed representation, and the process of editing over its product. The World Wide Web is viewed as the ideal vehicle for exploiting this vision of multiple intentionalities, multiple meanings, and multiple authenticities.

It is indeed the place of librarians and archivists to place a structure of stability over what seems to be an endless flow of infinite possibilities. Some resources will require different modes of stabilization than others. Some resources may require more stabilization than others; this will depend on what the material in question is, and wherein its capacity to generate consequences is located. For a digital work of art, its capacity to generate consequences may lie in it remaining allographic and polysemic; one of its most important intentions may be to provoke action, reaction, adoption, manipulation, and absorption. Meanwhile, the capacity of a business record to generate consequences may lie in its text remaining fixed; one of its most important intentions may be to provoke action by the words that it carries.

The foregoing discussions have highlighted the fact that authenticity is not a fixed notion, but is an idea that is shaped by a range of factors; the meaning of authenticity changes depending on its context and purpose. The authenticity of digital materials, correspondingly, cannot be defined in any monolithic sense. Just as people, art, text, and records possess their own kinds of authenticity, each digital resource will also have its own authenticity or indeed authenticities. In order to support this expansion of intentions, meanings, and authenticities, librarians and archivists can recognize and advertise their own agency in the management of digital resources.

Librarians and archivists are not neutral preservers of digital resources, but active agents in the reconstitution of these resources over time. The
decisions that they make about preservation determine how the materials will be accessed, read, and understood by users. For that reason, their decisions should be made known: Which intentions and which meanings have been privileged and preserved, and for what reason? Librarians and archivists may be loath to show themselves so visibly in the process of preservation, but there may be growing pressure to do so because, as Mitchell observes, “There is an erosion of traditional boundaries between artist or photographer, editor, archivist, publisher, republisher, and viewer” (1992, p. 53). As these traditional boundaries erode, it is increasingly important that the custodians distinguish their intentions from the multitude of others that intersect across the digital materials in their care.

If the process of preservation is made visible, users are better equipped to make an informed decision about whether the materials meet their specific requirements for authenticity. Users play a critical role in assessing the nature and degree of trustworthiness that these materials ought to be accorded in particular circumstances; this is because their assessment is based on a wider range of considerations than are typically taken into account by the preserver. The procedures that librarians and archivists establish for preserving the authenticity of digital resources are thus merely a starting point in a socially negotiated and historically situated process of assessment.

Perhaps the most important conclusion that librarians and archivists may draw from this exploration of different constructions of authenticity is that digital resources, like art works, literary texts and business records are in a continuous state of becoming as they are situated and resituated, initially within their original environments and subsequently within libraries and archives. The long-term preservation of “authentic” digital resources is, equally, an ongoing process in which librarians and archivists construct and reconstruct authenticity in accordance with their understanding of the nature of those resources and current conventions for managing them. That understanding is shaped, in turn, by socially constructed perceptions of the role of libraries and archives in the preservation of cultural heritage, and those perceptions also change over time.

Notes
1. See, for example, United Nations Educational, Scientific and Cultural Organization (2003).
3. See also Starn (2002). A survey conducted by Duff, Craig, & Cherry found that, while almost three-quarters of respondents (71% percent) “always” or “often” question the reliability of archival resources (reliability being defined by the researchers as “the degree to which the record accurately reflects what happened”), fewer than one-fifth of respondents (18% percent) “always” or “often” question the authenticity of archival sources (authenticity being defined by the researchers as “a record that has not been altered or changed..."
since its original creation”) (Duff, Craig, & Cherry, 2004, pp. 67–70, 77); see also Cullen (2000, pp. 5–4); and Hedstrom, Lee, Olson, & Lampe (2006).

4. See, for instance, Gränström et al. (2002, p. 10); and Smith (2003, p. 181). See also Cullen et al. (2000).


6. This and subsequent definitions in the subheadings are from Oxford English Dictionary Online (2006), s.v. authentic.

7. See, for example, Hegel (1807/1931).


9. On this matter, see, for example, Carrier (1985); Dutton (2003); Dykstra (1996); Lowenthal (1986).

10. See, for example, Eggert (1994, p. 68).

11. As Benjamin (1936/1968) observes, “Precisely because authenticity is not reproducible, the intensive penetration of certain (mechanical) processes of reproduction was instrumental in differentiating and grading authenticity. To develop such differentiations was an important function of the trade in works of art . . . To be sure, at the time of its origin a medieval picture of the Madonna could not yet be said to be ‘authentic.’ It became ‘authentic’ only during the succeeding centuries . . .” (p. 243, n. 2).


15. The law of evidence also deals with the authenticity of records as records, but that is not the focus of the present discussion. For a description and analysis of the common law rules of evidence that address the authenticity of records as records see MacNeil (2000, pp. 46–50).

16. The specific case to which Wigmore refers is the presumption of due performance of official duty that explicitly underpins the admissibility of public documents and implicitly underpins the business records exception to the hearsay rule.

17. The rule governing the admissibility of records of regularly conducted activity is codified in the United States House of Representatives Committee on the Judiciary (2005, rule 803(6), p. 16). The admissibility is supported by an oral or written declaration by the custodian or other qualified witness that the record meets these conditions.

18. On this point in general, see Latour & Woolgar (1986).

19. It is recognized that adjudication of the facts at issue may also fall within the purview of a judge, that is, in the case of trial by judge. However, for the purposes of this discussion, it is assumed that the trier of fact is a lay jury. In this discussion the terms “ trier of fact” and “tribunal” are used interchangeably.

20. The principle is discussed by Cohen (1983), who also coined the term “universal cognitive competence.”

21. “Polysemic” is one of the adjectives used by Shillingsburg (1993) to describe the changing nature of texts in electronic environments.

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Guarding Against Collective Amnesia? Making Significance Problematic: An Exploration of Issues

Annemaree Lloyd

ABSTRACT
A nation’s collective consciousness relies on the traces of memory collected by institutions such as libraries, archives, and museums. Such institutions have a responsibility to preserve documents and objects that reflect individual and collective endeavors and that have had an impact on culture and society at national, regional, and local levels. Institutions need to assess documents and objects against criteria that, in effect, “name” these items as significant. Most institutions claim that this process is objective, failing to acknowledge that it is underpinned by ideological, political, economic, cultural, and social influences. The position adopted in this paper is that the process of naming a document or object as significant will always reflect the directions and consciousness of a society’s dominant groups, and that this will shape interpretations and narratives of the past. Thus the voices of a community’s minority or special interest groups will be silenced. This paper suggests that neither the concept of significance nor the process of assessing significance is benign; both should be seen as areas of tension and contestation.

INTRODUCTION
As I was writing this paper, I read a review of a television documentary commemorating the fifth anniversary of 9/11. The documentary was about Richard Drew’s Falling Man series of photographs of a person falling to his death from the World Trade Center. These photographs became the subject of media self-censorship and debate in the United States:
Several days after the photograph appeared, it vanished... There was a deeply held belief the deaths of the jumpers weren’t proper, indeed they were cowardly. The images that came to symbolize the day were of helmeted heroic rescuers working in the rubble and the jumpers disappeared. (Blundell, 2006, p. 24)

These images are representative of the significance debate. History is written by victors. It is the dominant paradigm and its culture and institutions that define what is to be remembered, and how it will be remembered.

Within collecting institutions, such as libraries, museums and archives, that seek to provide enduring access to the cultural memory, the concept of significance emphasizes importance and consequence to the community served by these institutions. Assigning significance creates an illusory “fiction” of collective understanding, so that an item of documentary heritage, once designated significant, is deemed worthy of remembering. The consequence of assigning significance is understood within the institutions as helping to shape the future consciousness, interpretations, and narratives of their communities. The act of assigning significance is a social action that is constituted through a symbolic need to establish or maintain a social thread or connection, to preserve a footprint that is deemed important, and to ensure the continuity of a community’s memory. Piggott (2005, p. 311) describes memory as inherently “social.” He suggests that in the process of assigning significance we commit to memory an intentional rendering, interpretation, and narrative that will have long-lasting implications. The reasons and consequences underpinning the assignation of significance should be carefully examined and considered by librarians, as their involvement in this process has an indirect impact on future interpretations and shared narratives of history. In this respect, the process of identifying material as significant has a symbolic function; it creates knowledge about an object’s importance and about repositories of knowledge built and maintained by librarians, which helps shape future cultural memory.

The UNESCO-sponsored Memory of the World Programme exemplifies this process. The program identifies those document records of human endeavor that are designated as significant and may be digitized so that they remain accessible to future generations. In discussing the current institutional trend of digitizing collections, Dalbello (2004) recognizes the impact of this activity on the shaping and structure of cultural memory: “the shaping of cultural memory corresponds to the emergence of shared narratives from an array of possible historical interpretations. Loci of memory, key events, key texts or artefacts then become symbolic points of reference for group identities” (p. 267).

As Pymm (2006, p. 65) notes, the process of determining an item’s significance and the impact of this process have received scant attention
from the library profession. In libraries, determining and assigning significance proceeds as a largely uncontested practice. While the concept of selection is well documented, the associated concept of significance and its implications and consequences for both library collections and society remain unexplored and uncontested.

In this paper I explore the concept of significance as it relates to collecting institutions such as libraries and archives. I argue that, while the concept is not identified as problematic in the literature, it is highly problematic in practice. This is primarily because the process of identifying an item as significant is a subjectively constituted practice that constructs a social reality and produces a collective consciousness. It is underpinned by the narratives, directions and values of dominant groups within a society, who influence institutional agency and practice in the designation of significance. Thus the construct of significance cannot guard against “collective amnesia,” because the voices of a community’s marginalized groups or disenfranchised interests, with different or contested stories to tell and, consequently, different memories to preserve, are silenced.

Three interrelated themes are used to explore the implications and consequences of significance:

- Assigning significance as a political act
- Significance as a social construct
- Significance as a contestable practice

The aims of the paper are to problematize the discursive practices of significance assessment by challenging aspects of the concept, and to pose questions to stimulate the exploration and consideration of significance in library contexts. Although the paper draws on Australian activities and approaches to identifying and describing items as significant, the questions posed will resonate for memory institutions worldwide.

The Politics of Memory: Contesting Concepts of “Institutional” Significance

Designating items of documentary heritage as significant is a political act. It has implications for the preservation of knowledge and the shaping of cultural memory. Items are selected as significant because they are deemed to represent intellectual endeavor, because they may be unique, and because they reflect or report a particular activity at a particular point in time. Within this process a secondary process of knowledge creation and mediation occurs. Through this secondary process knowledge is created about an item’s importance in relation to its ability to contribute to and enrich the fabric of society. This knowledge is then used to mediate and advocate the worthiness of the documents for preservation purposes. The implications of this secondary process of knowledge creation remain largely unexplored in the library literature.
This secondary process not only determines an item’s importance to the collective memory of society, but also creates a unitary fiction about what is valued and worth attending to through the costly processes of long-term preservation. This, in turn, can be used to suppress contestation of the value of memory by marginalized groups. The production and retention of knowledge through documentation and preservation of documentary heritage that is determined as significant constitutes, therefore, the exercise of power over others. Alvesson (2002), in discussing the connection between power and knowledge, suggests that “knowledge orders and structures the world; the world is formed by the knowledge institutionalized within it” (p. 56). This secondary knowledge creation aims to foster and maintain overarching narratives (the narrative of discourse), which, in turn, work toward rendering, securing, and maintaining the dominant group’s position within society (Alvesson, 2002; Foucault, 1977, 1980). The discursive representations produced and maintained through discursively-constituted practices are sanctioned by the group and ultimately represent a particular interpretation of reality and construction of truth that regulate “what is said and written and passes for more or less orderly thought and exchange of ideas” (Cherryholmes, 1988, p. 2).

This exercise of power can have a negative and long-lasting influence on future generations and the resilience of collective memory. Zhang and Schwartz (1997) use the coercing of Yugoslavian libraries during the Milosevic regime as an illustration of attempts to alter collective memory through discursively sanctioned practices. These libraries were commandeered to validate ethnocentric myths that perpetuated an inflammatory collective memory by emphasizing selected historical events and by promoting social stereotypes as historical fact. Similarly, Knuth (2004) reports on the systematic destruction of Tibetan documentary heritage by the Chinese before and during the Cultural Revolution in an attempt to eradicate Buddhism and traditional cultural memory. Knuth uses this as an illustration of the application of discursive practices to acculturate an indigenous group into the discourses of an invasive and powerful culture.

Codified knowledge is viewed as ordering and structuring the world, and libraries, archives, and other memory institutions play a critical role in ensuring the recognition, survival, and preservation of documentary heritage in physical and, increasingly, in digital form (Cook, 2001). In this respect the discursive practices of memory institutions are critical in ensuring that knowledge is accessible to present and future generations. This places them in an often downplayed, yet powerful and influential, position as keepers of cultural truth, shapers of memory and guardians of sanctioned knowledge.

Concepts of power and knowledge affect any discussion about significance, because they underpin questions about the construction and
contestation of truth and about whose knowledge is worth preserving for future generations. Alvesson (2002) maintains that “power resides in the discursive formation itself—the combination of a set of linguistic distinctions, ways of reasoning and material practices that together organize social institutions and produce particular forms of subject” (p. 56). The relationship between knowledge and power is a key element in critiquing the concept of significance, because it illustrates that dominant ideologies maintain their dominance by simultaneously embracing the notion of transcendent truth and defining the rules that determine truth (Fletcher, 1999, p. 23).

Therefore, the retention and shaping of collective memory and determinations of significance will be underpinned by notions of truth held by the powerful in society and by the decisions of the powerful about which truth, or which versions of truth, are valid and worthy of preserving for the long term. These decisions will be inherent in any criteria for selection for significance and in the availability of funding for the long-term retention of items that contribute to shaping the collective memory of that society.

**Significance and Identity**

The construct of significance is also central to understanding the way that discourse and discursive practices affect and influence the identification of items of significance by collecting institutions. The decision to designate an item as significant legitimizes the item in accordance with societal subjectivities, which are then enacted through institutional agency. Alvesson (2002) states that “Discourses produce subject positions—not that different from roles . . . that individuals are located in (locate themselves in). These subject positions then drive individuals’ perceptions, intentions and acts” (p. 50).

In Western collecting institutions the designation of an item as significant reflects and reinforces power relations. It does this by facilitating the shaping of societal identity and memory, thus ensuring that the dominant voices, narratives, and interpretations, constituted through documentary (physical and digital) statements, are preserved and, therefore, available to be incorporated into the collective consciousness, which is the fabric of national or unitary identity. In her discussion of the evolution and function of libraries, Knuth (2003) states that “as societies grow in complexity, they increasingly depend on systems of knowledge that serve to connect various types of behavior, apply lessons from the past to future enterprises, and organize the indispensable activities of modern living” (p. 19).

Critiquing significance leads us to consider and problematize the concept by acknowledging the nature of truth and the possibility of contested truth. What becomes important in any analysis of significance is what is considered and interpreted by stakeholders (e.g., funding bodies, librarians,
dominant interest groups) as truth (and therefore significant), and what is not (and therefore dismissed or disenfranchised). This begs the questions: how are determinations of significance made? And, how representative of a community are the committees that make these determinations?

**Contesting Memory**

While librarians have been silent about the implications of significance and about how to determine significance, another group—archivists—have been actively reappraising their professional activities to focus more on social memory and the contestation of memory. Piggott (2005, p. 320) calls this “remembering and forgetting.”

Examples drawn from archival studies literature illustrate the contested nature of social memory resulting from selection decisions. Piggott (2005) questions the nature of truth and interpretation and the impact of this activity on the retention of archival materials. He refers to the official enquiry into the National Museum of Australia’s policies that was triggered by the exhibitions in the First Australians gallery where display of items relating to such events as the Bells Falls massacre of indigenous people in New South Wales contested the sanctioned interpretations of written history. Piggott writes “there is clearly a visible clash of two kinds of memory, two ways of knowing and remembering. The presence and interpretation of archival documents was and is crucial to that clash” (p. 312).

**Acknowledging and Silencing Identity: The Australian Memory of the World Program**

There is little evidence in the literature of librarianship that the concept of significance and the impact of its designation have received much critical attention or thought. Discussion of methods for determining significance in libraries has drawn heavily on practice in the archaeological and built heritage sectors. This is remarkable, given that libraries assert a mandate as keepers of collective memory. In one rare exception, Lyall (1993) explored significance in the context of the collecting and preservation responsibilities of the National Library of Australia. Her criterion for identifying an item as of national significance was that it “constitutes an authoritative significant record of Australia as a country and of the people, events and influences which have affected it” (p. 71).

A reason for this apparent lack of interest in significance as a concept may be found in the dominant neoliberal reality that underpins the economics of preservation activities in libraries and other collecting communities. Decision makers tend to operate in management contexts with limited budgetary resources and finite storage space. Consequently, what is determined to be significant in terms of the dominant paradigm reflects the reality of these constraints and, therefore, constructs history in
a way that is influenced by and maintains the dominant identity and advantage of particular groups. Decision makers do not have the resources to preserve everything. Therefore, decisions have to be made about what is significant, and, consequently, whose interests are to be acknowledged, what documented history is to be privileged, and whose history is to be marginalized or silenced.

The UNESCO Memory of the World Programme was designed to ensure the preservation of endangered documentary heritage that was considered to be of importance to regions or groups and at risk of disappearing (Knuth, 2003). The objective of the program is to prevent “collective amnesia” (p. 295) by establishing a register that would be accessible worldwide. Established in 1992, the program recognizes the fragile nature of documentary heritage and the unstable nature of global affairs. It aims to ensure that access to significant documents, central to the fabric of a society, are preserved. The program’s guidelines encapsulate the intention: “The UNESCO Memory of the World Programme is aimed at safeguarding the world’s documentary heritage, democratizing access to it, and raising awareness of its significance and of the need to preserve it” (Foster, Russell, Lyall, & Marshall, 1995).

Many countries have their own national versions of this project. In the Australian Memory of the World Program items deemed of national significance must demonstrate “historic, aesthetic, spiritual, community or research significance” (Australian Memory of the World Committee, 2005). They are judged against criteria which require evidence that they:

- are authentic—the authority, identity, and provenance of the item must be established;
- are unique—recognized as iconic to a community;
- are irreplaceable—its loss would impact on collective societal memory;
- have an impact—over time and space;
- have influence—the influence may be positive or negative;
- are representative of type without direct equal; and,
- demonstrate comparative value—rarity, completeness, integrity relative to others of its kind.

In undertaking the “test” for significance each item must be measured in terms of one or more of the following:

- time—the temporality should be established, the item must demonstrate significant cultural or societal change;
- place—location of creation, or location of event of phenomenon represented in document;
- people—social or cultural context reflected in the document;
- subject and theme—historical or intellectual developments; and,
• form and style—aesthetic, stylistic or linguistic values, document should be an exemplar of its type (Howell, 2002, pp. 6–7).

Items can be nominated for the national register; if deemed “nation-ally significant,” they can also be nominated by the national committee for inclusion on the world register. To date the majority of items on the national register (http://www.amw.org.au/register/amw_reg06.htm) record Western accomplishments or benefactions to minorities (e.g., the *Endeavour* Journal of James Cook, the Mabo Case Manuscripts).

Applying a significance assessment methodology can, therefore, be viewed as a discursively constituted practice, influenced by the subjectivities of the assessors and of institutions which are, in turn, influenced by availability of funds and by the over-riding narratives of influential groups in their constituencies. In the act of nomination for the national regis-ter, the concept of significance imposes an overarching meaning upon a document or object (possibly extending or altering its internal meaning). This assigns unique qualities to an item and alludes to a notion of the document or object as having a unified meaning that is uncontested by the community.

**Objective Significance? Whose Memories Are Worth Remembering?**

As the example above demonstrates, assigning significance is a reduc-tionist process; that is, the document or object is reduced to meeting a set of criteria, established by the collecting or assigning organization. The irony of this position is that the development of criteria, while it is claimed to be an objective process, in fact underlies the subjective positions and political interests of those charged with determining significance and thus privileges some memories over others. Cook (2001) asserts that there is “nothing neutral, objective, or ‘natural’ about this process of remembering and forgetting” (p. 9). In other words, significance relies on relational systems that are discursively produced (Alvesson, 2002). For an item to be designated as significant there must be a set of sanctioned practices legitimized through socially constructed definitions that reflect systems of thought (discourses) and produce particular forms of subjectivity (Foucault, 1977, 1980).

In Australia, for example, definitions of significance are recast from the cultural heritage definitions that are used to underpin criteria developed within the discourse of archaeological science and built heritage. The revised edition of the Australia International Council on Monuments and Sites (ICOMOS) Burra Charter, adopted in 1999, is concerned with the conservation of natural, indigenous, and historic places. The charter defines cultural significance according to aesthetic, historical, scientific, or social value. According to the charter, cultural significance is “embod-
ied in the place, fabric and setting, use, associations, meanings, records and related places and related objects” (Australia ICOMOS, 1999, Article 1.2).

Definitions of significance in the contexts of documentary heritage adopt this characterization within Western collecting or assigning organizations. In general, for documentary and cultural heritage, significance refers not just to the physical fabric or appearance of an object. It incorporates all the elements that contribute to an object’s meaning, including context, history, uses, and social and spiritual values. Significance is not fixed; it can increase or diminish over time (Russell, 2001, p. 11). This seems to suggest that the fabric of collective memory can be woven and altered as perceptions of significance change over time. Thus it contradicts the Memory of the World’s charter to guard against “collective amnesia” and begs the question: at what point does an item’s significance diminish to the extent that it should be removed from the program’s registers?

Any determination of social or spiritual values requires a subjective understanding of these elements in time and space. Such a determination would be difficult to make outside of an item’s context. For example, the idea that non-indigenous communities might be able to interpret, let alone develop a deep subjective understanding of, the intrinsic importance of items of spiritual value to an indigenous group has been criticized as paternalistic and as failing to understand the complexities and systems of those indigenous communities that may even control the rights of their own members to identify and interpret materials of significance. Because of this, Sloggett (2005, p. 121) has posited: “cultural significance is after all a very relative construct. Could the members who make up the Memory of the World assessment panels recognize the real significance of a document proposed by a cultural minority?”

The same problem underlies criteria that are intended to be used in the assessment of social values. The unavoidable questions must be asked: Whose social values? Which voices would determine them? Which interpretations would be deemed valuable? Archivist Terry Cook (2001) recognizes the problem. He argues:

No text is a mere innocent by-product of action . . . but rather a consciously constructed product, although that consciousness may be so transformed into semi- or even unconscious patterns of social behaviour, organization process and information presentation that the link to external realities and power relationships is quite hidden. Texts (which include images) are all a form of narration more concerned with building consistency and harmony for the author, enhancing position and ego, conforming to organization norms and rhetorical discourse patterns, than they are evidence of acts or facts, or juridical or legal frameworks. And there is not one narrative in a series or collection of records but many narratives, many stories, serving many purposes for many audiences across time and space. (p. 7)
Significance methodology requires those who apply it to “tease out the unique characteristics and meanings of each object or collection” (Russell, 2001, p. 11). This is done against an established and agreed-upon set of objective and subjective criteria, encompassing historic, aesthetic, scientific, social, and spiritual attributes. Harvey (2003), in discussing the UNESCO Memory of the World Programme, points out that the process which results in inclusions on the register is “also the subject of much politicking, and the logic for inclusion or exclusion of nominations is not always clear to the outside observer” (p. 138).

Lost and Missing Documentary Heritage

Recently, at the request of the Australian Memory of the World Program, Lloyd, Harvey, and Lodge (2005) attempted to establish a method of recording lost and missing documentary heritage. This attempt confirmed the elusiveness of the concept of significance. Review of an item’s significance may result in its removal from a register or from a collection, or it may fail the significance assessment altogether, because its importance, impact, or relationship to other events are either not recognized by national committees responsible for a register or are contested by those committees. The ambiguity of the concept of significance emerged as an important theme from responses to a pilot survey aimed at identifying lost and missing documentary heritage. In particular, reconciling local collective memory with national significance selection criteria was problematic. This research led Lloyd, Harvey, and Lodge to conclude that significance is a “relative” concept and that its meaning must be reconsidered and recast to include local and regional significance, to recognize that local and regional events ultimately shape national memory. Their study also found evidence of the importance to a community’s memory of the impact of accidental loss of documents and of their intentional removal from preservation schedules.

Yorke (2000) draws attention to the tensions experienced by archivists when a single community view—usually that of the dominant governing or funding body—is imposed on appraisal practices. In Australia such imposition has in the past led to the destruction of case file records, which documented the separation of indigenous children from their families—files whose “contents would embarrass the government” (Human Rights and Equal Opportunity Commission, 1997, cited in Yorke, 2000, p. 27). The destruction of these records constitutes a loss of explicit and codified memory for these families, the community and the nation, and continues to hinder reconciliation among these groups. Community attitudes to past practices and to the need for reconciliation have altered considerably in the last seventy years. The case files contained evidence of contemporary social values—evidence of the consequences of intervention, which is now seen as important for future generations.
Further Considerations

While the term *significance* can be easily defined, the concept of significance is slippery and elusive. It can be understood in different ways by different groups at different points in time; its interpretation is reliant on the agency of institutions. When asked to determine an item’s significance, organizations can readily provide a definition and a methodology to be used in the assessment of significance. This process, overarched by the legitimizing narratives of dominant groups, indirectly influences what is selected and whether funding will be provided to ensure long-term preservation strategies. Significance is not “out there” as a unified or objective concept; it is something that has been created by various techniques, including methodologies that reflect vested interests and ways of knowing. This creates problems for programs such as the Memory of the World, which claims an interest in safeguarding against collective amnesia.

To assert that objectivity in the determination of significance can be demonstrated through application of significance methodologies is to deny questions about the centrality and power of discourses that act to inform material practices, which position an object with the collective consciousness of community, and designate it as significant. The position of assessing an item’s value or worth to a community or a nation against a formulated set of criteria appears reductionist; it assumes that core values and beliefs about what is worth remembering are common to the diverse groups that constitute a society.

Significance is a social construct. Its meaning will always be a product of temporal, spatial and social considerations that are underpinned by social, political, historical, and economic acts. As a social action the designation of significance marginalizes minorities and effectively silences voices that may contest the dominant remembering of a community. In effect, designating items of documentary heritage as significant delimits a society’s collective memory and leaves it vulnerable to decisions that may over time selectively deny other voices or strands of remembering, thus thinning the fabric of collective memory to mere threads.

In arguing for or against an item’s significance, ethical implications need to be acknowledged: Whose voices are being silenced? Whose voices are being heard? What are the long-term implications of these actions?

Encouraging Debate

As Raven (2004) so graphically illustrates in *Lost Libraries*, the loss of collective memory is a tangible reality, as libraries and their collections throughout the ages and around the world become symbolic targets for groups who wish to eradicate or alter collective memory through loss, alteration, removal, or intentional destruction of those collections. This reality makes it critical for librarians to engage in debate about significance. They must recognize the implications of assigning significance and the
long-lasting ramifications of this action on collective memory. It is in this context, and in the spirit of exploration adopted by this paper, that the following questions are posed to stimulate debate among members of the library profession:

- How do we reveal our reflective processes, biases, and subjectivities in the designation of significance? Determinations of significance are always subjective; a primary role for librarians involved in making these determinations is to place themselves in the context of the decision making. This may include revealing our own subjective positioning (e.g., social, economic, historic, and political influences).
- How do we demonstrate our ethical position and ensure that the influences on our decision making are visible?
- How do we bring into any consideration of significance the voices that propose and contest designation of significance, but which are critical to a holistic encapsulation of collective memory?
- How do we ensure that actions in designating significance are free from vested interests, political, or economic influences?
- Do we avoid significance designation altogether? Should we focus on representation, which can be framed within distinct historical, social, or economic periods, and which actively recognizes both dominant and marginalized or silenced voices?

The question posed in the title of this paper is rhetorical and, as Pymm (2006) has suggested, there probably is no single definitive answer. The reason for this rests in the problematic construct of significance, and in library scholars’ and practitioners’ unwillingness to engage in debate about the underlying themes that motivate and drive the designation of significance. Yet it is critical that librarians do think about these themes and debate them, both among themselves and with those in allied professional groups. It is critical that they collaborate with all groups who claim a role in society as keepers of collective memory to find answers to questions raised in this paper. The consequences of not doing so will be narrow and structured remembering, which will fail to reflect the rich diversity of cultural life and will heighten the threat of collective amnesia.

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References

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Displaying Traditional Yorùbá Religious Objects in Museums: The Western Re-Making of a Cultural Heritage

Anna Catalani

ABSTRACT
This paper, based on doctoral research carried out from January 2003 through July 2005, addresses the interpretation and representation of non-Western religious material culture in Western museums and offers a comprehensive view of the way traditional religious Yorùbá objects are displayed in contemporary museums in Britain. Museum exhibitions can be conceived as a visual narrative, which absorbs the religious essence of traditional religious non-Western objects into broad categories. At the same time, these categories are still strongly affected by Western aesthetic appreciation, understanding, and classificatory systems. In museum displays, traditional Yorùbá religious material culture loses its distinctiveness and is absorbed into global pan-African representations. Therefore, in order to be able to reach more informed or “authentic” interpretations, museums should include the memories and voices of the people who are “closer” to the original meanings of traditional religious objects.

INTRODUCTION
When enthusiastic and erudite collectors created their first cabinets of curiosities, they could not foresee in which complex, public, and socially significant institutions their private and intriguing rooms would develop. Indeed, since their creations, the notion of the “museum as a room filled with curiosities” has changed and museums, as organizations, have accomplished different purposes. They have shaped their role according to the changeable needs of contemporary society and from elitist, academic institutions have become public, informal learning environments; from intimidating, dusty mausoleums they have transformed into open, intercultural forums.

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Nowadays, the number of museums in the Western world is extremely high and, as Thomson has astutely pointed out, museums have been and are still created either from a big collection or from a big idea (Thomson, 2002). However, it is indisputable that since their birth, one of the primary purposes of museums has been the preservation of material culture and of the related documentation for the benefit of contemporary and future generations (Pearce, 1996). Museums, in fact, host the tangible traces of the past and because of this, they are very poetical environments: they are “magical places, repositories for the wonders of the world, dynamic participants in our interpretations of the past, and places for launching dreams of the future” (Thomson, 2002, ix).

This paper aims to give a comprehensive view of the way traditional religious Yorùbá objects are displayed in contemporary museums in the United Kingdom. The paper has been organized in three main sections. The first section will be concerned with museum displays, the “visual” aspect of museum exhibitions, and the importance of the act of looking at objects in museums. The second section will present the issues related to religious objects in museums. The third section will be a review of the different museum approaches in relation to Yorùbá religious objects in museums in the United Kingdom. The paper asserts that museum exhibitions can be seen as a visual discourse. The visual discourse absorbs the religious essence of traditional religious non-Western objects into broad categories, which are still strongly affected by Western aesthetic appreciation, understanding, and classificatory systems.

Museum Displays and Visual Culture

Museums are the official repositories of people’s tangible and intangible heritage, because, through their collections, they keep and exhibit past and present people’s histories and memories. Specifically, in relation to contemporary society, museums and their collections are used to build cultural bridges between the displayed items and communities and between different local communities. However, the relationship between communities, museums, and their collections is strongly determined by the self-definition and perceptions of the communities within the society (Parkin, 1999). Indeed, it is important to consider that contemporary British society is made by different cultural and ethnic groups, which have arisen through complex historical processes of migration and diaspora and which are characterized generally—although not universally—by a constant process of integration of different cultural characteristics. Museums, therefore, reflect this multicultural and multiethnic climate as well as the integration and often the renegotiation of broadly accepted cultural identities. Concerning this, Henrietta Lidchi (2006) has explained that museum “exhibitions cannot be taken as disinterested representations of what is ‘out there,’” since they are influenced by contemporary
social agendas and cultural needs (p. 94). Furthermore, museum exhibitions are definitely “one of the principle means by which the people access [first of all visually, different] culture[s]” and every aspect of them (p. 94).

As mentioned in the introduction, this paper focuses on a specific category of objects (traditional Yorùbá religious objects) and on a specific category of museum exhibitions (ethnographic exhibitions). However, before discussing the way traditional Yorùbá religious objects are presented in British museums, it is important to define the way the term ethnography is used in this context. The term ethnography has had a complex history. Among several others, one of its key uses has been in the traditional language of museums, where in “Curators of Ethnography,” “Ethnographic collection,” or “Ethnographic Gallery,” the word simply means “material not from Europe or (usually) the East and Far East.” It is in this sense that the word ethnography is used in this paper. In addition, ethnographic exhibitions are profoundly visual products (Lidchi, 2006, p. 95). And it is the visual aspect of museum exhibitions as well as their relation with the notions of visual culture and non-Western cultures in museums I would like to briefly discuss.

Visual culture is related to the way images and objects contribute to the visual and social construction of reality. Visual culture is, in fact, the interpretation of different forms of visual evidence and concentrates “on the cultural work that images do in constructing and maintaining . . . a sense of order in a particular place and time” (Morgan, 2005, p. 29). Museums and museum exhibitions fully fit into this process of “constructing and maintaining a sense of order.” Indeed, museum representations mirror the understanding of cultures and therefore contribute to the formation of social and historical views. In addition, if we consider religious images, objects, and symbols, they visually cement people’s religious beliefs and values; at the same time, they also help to order and classify the surrounding world and human experience. However, the encounter between two different cultures’ sets of images, objects, and symbols (such as, Western and non-Western) could lead to visual and ideological clashes (Morgan, 2005). This is because the two encountered different cultures would not necessarily share the same classificatory, visual system.

Furthermore, according to the visual culture perspective, the act of seeing is very important and it is considered in its whole complexity. The “act of looking at something”—and this includes also the act of looking at objects in the museum context—is complicated: it entails the entire human sensorium, from the biological sphere to the cultural one (Morgan, 2005). When viewers or visitors look at museum displays, they are emotionally, physically, and culturally absorbed into the exhibition displays. This is because of the nature of the images that are all polysemous: images, objects, and their related meanings are not fixed but “contingent, unstable
and pluralistic” (Morgan, 2005, p. 127; Evans & Hall, 1999). Therefore, every image (and image of objects) includes a floating chain of signifiers and, in the museum context, visitors are ‘occupied” in selecting some, refusing others, and assigning to the image/object the meaning closest to their understanding and background (Evans & Hall, 1999).

In a museum, the act of looking becomes “an active engagement” between visitors and collections (Mack, 2003). This is because people’s memories are stimulated and an emotional link is created between the objects and the public. This emotional link is based on a sense of common cause, common experience, common remembrance and even on a sense of identity reinforcement toward the items on display (Mack, 2003; Walsh, 2002). By looking at the displays, people might simply compare their own images, symbols, and notions with the set of nonfamiliar information presented to them in the exhibition. In addition, in museums, the mere act of looking at somebody else’s objects and material heritage is often accompanied “by a sense of nostalgia associated with a longing and/or desire for something that has faded or disappeared and perhaps not longer attainable” (Walsh, 2002, p. 40). This is due, first of all, to the poetic atmosphere of the museum itself as a historical environment. Moreover, by actively linking their inner worlds and memories to the objects and the cultures exhibited, visitors do not act as simple and passive witnesses, but they actively engage with the museum collections. Actually, as Mack (2003) explains, the act of looking at the objects and therefore of “stimulating memory [is a] means to breathing life into inanimate objects” and to bringing alive the represented cultures (p. 18).

However, in relation to the subject of this paper, that is to say non-Western religious objects, museum professionals have to face few challenges. If “cultural identity is acquired from the context where one was born and brought up” (Khemir, 2001, p. 44) and if the act of looking at objects in museums can stimulate memories and sense of a common experience, the situation concerning diasporic groups and their traditional objects displayed in Western museums can be quite problematical. Therefore, more complex considerations should be made in relation to traditional non-Western objects displayed in Western museums and diasporic groups to whom these objects belonged.

As Khemir (2001) explains “memories constitute a very important component in the life of a culturally displaced person” (p. 44). However, considering that the relationship between communities and objects (i.e., cultural, religious, and traditional) is strongly determined by the self-definition of these communities within societies and considering that non-Western objects have become the symbol of a deprived past, diasporic groups might find it difficult to relate their memories to the displayed heritage (Parkin, 1999). Furthermore, during the Age of High Colonialism (1850–1914), non-Western objects (including the traditional religious
ones) have arrived in the Western world as plunders of military and Christian campaigns and have been categorized as trophies, fetishes, or exotic pieces. Particularly, traditional non-Western religious objects have been given social and cultural labels that have neglected and, often denied, their spiritual and religious essence. This is because they have been interpreted according to Western social, religious, and artistic criteria. In fact, Western social constructions have determined a Western social understanding of non-Western religious objects, based on different understandings and definitions and in accordance with the political propaganda of the time.

Museums and Religious Objects

As Svetlana Alpers has pointed out, in museums everything can be turned into something special, into a work of art; it depends on the way we decide to look at it and on the criteria we (museum professionals or visitors) use to define it (Alpers, 1991). Indeed, often contemporary museum displays, in order to present non-Western objects in an appealing way, end up displaying these objects as though they were part of a marketing campaign; museum exhibitions are visual statements, which mirror contemporary social understandings, as much as the “advertising discourse both reflects and creates social norms” (Schroeder & Zwick, 2004, p. 24). Therefore, the characteristics of religious objects may change according to the religious beliefs and to the society that has created and used them. Actually, as Susan Langer explains, religious and “sacred objects are not intrinsically precious [or religious], but derive their values from their religious use” (Langer, 1951, p. 136). The religious meaning of a religious object depends strongly, hence, on its ceremonial and social context, that is to say where the object is used and where it has become a symbol, a visual, material means of communication between human beings and their gods or even a materialization of the gods themselves, who need to be cherished by their worshippers through it. It is, therefore, evident that when religious objects are moved out from their original, secret, religious place, and are inserted in museum displays—which are public, common spaces—their sacred, spiritual aura is somehow lost. On the contrary, the same objects assume new characteristics because they are interpreted and labelled according to the Western social conventions, museum classifications and to the specific museum’s agendas. They have become, in other words, “museum objects,” which create a specific museum postcolonial discourse; objects and images become social understandings and visual statements.

The next section of the paper will present three different postcolonial museum discourses. All these museum representations exhibit traditional Yorùbá religious objects and they are all based in museums in the United Kingdom. The discussion of these three different typologies is use-
ful in defining contemporary museum cultural assumptions (Macdonald, 1996).

**THREE DIFFERENT MUSEUM APPROACHES**

Between January 2003 and July 2005, ten museum displays in the United Kingdom were analyzed. They all exhibited traditional religious Yorùbá objects. The displays were studied according to the morphology of the galleries, the arrangement of the objects, and the texts of the panels. The museum exhibitions and galleries selected were both temporary and permanent and they were chosen because they house major displays, which include traditional Yorùbá religious objects. Due to their different interpretative approaches, these displays offer a comprehensive scenario of different ways of exhibiting religious and ceremonial Yorùbá items in contemporary British museums.

The analysis suggested that the displays can be divided into three main, distinct groups: artistic displays; ethnographic displays, and religious displays.4

*The Art of African Material Culture: The Case of the Artistic Displays*

The category “artistic displays” indicates those exhibits that have prioritized the artistic nature of the items, while subordinating their religious nature. These displays do not appear to have a specific focus on any African ethnic group or cultural distinctiveness. On the contrary, they risk being “a denial of African cultural distinctiveness” rather than “a celebration of Pan-Africanism” (Pole, 2001, p. 48). Museums that focus on artistic displays include: the Sainsbury African Galleries (British Museum, London), the African Worlds Gallery (Horniman Museum, London), Gallery 36 (Birmingham Museum and Art Gallery, Birmingham), the World Cultures Gallery (Manchester Museum, Manchester), and the 125 Exhibition (Nottingham Castle Museum and Art Gallery, Nottingham). Apart from the 125 Exhibition (Nottingham), all the displays analyzed were permanent.

The arrangements strongly depended on the shape of the items and undoubtedly emphasized an impressive and artistic visual interpretation of the displays, as in the Sainsbury Galleries (British Museum) and in Gallery 36 (Birmingham Museum and Art Gallery). In most of the display cases, the viewing height was uncomfortable (Dean, 1994). Often the objects were placed at a level too low, and therefore arduous, to be properly valued. This was, for instance, the case of the Ibeji figures in the World Cultures Gallery (Manchester Museum); indeed the figures, exhibited in the same case with Gèlèdè masks and other non-Yorùbá religious figures, were displayed at such a very low level that the public was forced to lean down to be able to see them or to read the text accompanying them. Conversely, in other exhibitions, artifacts were displayed high up, making it
difficult for them to be seen or appreciated by visitors. An example of this can be seen in the display of Gèlèdè masks in the African Worlds Gallery (Horniman Museum). The concentration of the objects was high, and consequently some of the glass cases were too crowded for the items to be appreciated on an individual basis (Lord & Lord, 2002). This was especially the case in the World Cultures Gallery (Manchester Museum) and the Sainsbury Galleries (British Museum), where objects appeared to be presented predominantly for their impressive, visual impact. In order to emphasize this artistic presentation, the displays’ use of light was very important. Most of the displays employed artificial lighting in order to illuminate individual objects and this contributed to the artistic approach of the exhibits.

In all the displays, the exhibits did not follow a story line but were arranged according to typological criteria or themes: for example in the case of the African World Gallery (Horniman Museum), the displays were related to different typologies of African objects: from altars to Egypt sarcophagi; from Benin plaques to different kinds of masks and masquerades; from stools and headrests to ceremonial items. In contrast, the displays were organized in themes in the Sainsbury Galleries (British Museum), in the Living Cultures Gallery (Manchester Museum), and in Gallery 36 (Birmingham Museum). This typological arrangement offered static and sometimes puzzling representations (Pearce, 1996). In fact, the displays generally tended to freeze the items and the cultures they belonged to, without making a strong and evident link with the existing Yorùbá local communities. Indeed, the displays of the African World Gallery, for example, included views of African people in the object labels and panels, but these people were not necessarily Yorùbá and, for the main part, were artists.

The number of traditional religious Yorùbá objects displayed varied strongly and the majority of traditional Yorùbá religious objects on display were Gèlèdè masks, Ibeji figures, and Shango staffs, although they also included: crowns, beaded boots, Epa masks, carved doors; cutlasses; Ifa divination boards, Ifa oracles, Otsro mask, Egungun mask, amulets, and ceremonial bowls. In all cases, the objects have been presented as artistic pieces, displayed to be appreciated either as individual items or as part of a broader display. However, in all cases their religious essence and purpose had become a secondary attribute. Indeed, the displays analyzed are all appealing and impressive exhibits, which celebrate the beauty and exotic diversification of Africa, either as pieces of an African mosaic or as complex and artistic pan-African representations.

This artistic and pan-Africanist nature of the displays was also reflected in the labels that accompany the items and the displays. Only rarely was there reference to, or any link with, the local African or Yorùbá community. Apart from the aforementioned example of African Worlds Gallery
(Horniman Museum), it is worth citing the case of the Living Cultures Gallery (Manchester Museum). In Manchester, the museum made use of seven touch screens, which showed local people speaking about some of the objects in the collections. This was a part of a project organized to underline the existing connection between the cultures on display and the diverse cultural life of the people of northwest England. However, there are no Yorùbá people discussing the objects and there was no reference to Yorùbá religious objects or traditions.

These artistic representations confirm that museum depictions of African material culture are still affected by Western classifications and that traditional religious Yorùbá objects are absorbed into pan-Africanist impressive representations, a situation that might reinforce the stereotypes of exotic art and dislocation that museum professionals have struggled to destroy (Elliott, 2005; Vogel, 1991).

Keeping the Proofs of ‘the Others’: Ethnographic Displays and Static, Visual Classifications of Non-Western Cultures

The category of “ethnographic displays” has been determined by the strong ethnographic nature of the exhibits. Indeed, these displays are predominantly organized according to typologies and analogical criteria, which defines the objects on the basis of their similarities and differences (Catalani, 2005). Museums that focus on ethnographic displays include: the World Cultures Gallery (The World Museum, Liverpool), the Court (Pitt Rivers Museum, Oxford), the Maudslay Gallery (The Cambridge University Museum of Archaeology and Anthropology, Cambridge), and the Ethnography Galleries (The Royal Albert Memorial Museum, Exeter). All these displays were permanent.

The horizontal and vertical arrangements were both predominant in the ethnographic exhibits. This seemed due to the shape of the objects but also to the space available for the displays as, for example, in the case of the Court, in the Pitt Rivers Museum. In any of the displays examined, the arrangements did not have a comfortable viewing height. Indeed, objects were placed either at a level too low for a standard adult view or too high. The arrangement of the objects also affected the display density and the vista distance, which was quite low; the cases were often too crowded (as in the case of the Court) or were combining too many different shapes and typologies of objects (as in the cases of Ethnography Gallery, in the Royal Albert Memorial Museum), which made the displays too confusing for museum visitors to understand.

None of the ethnographic displays presented a continuous story line. On the contrary, they were organized through themes and typology. In the cases of the Court (Pitt Rivers Museum, Oxford) the themes were related to “the successions of ideas by which the minds of men . . . have progressed” (General Pitt Rivers, as cited in Blackwood, 1970, p. 8);
versely in the Maudslay Gallery (Cambridge Museum of Archaeology and Anthropology) the exhibits were organized according to the geographical location of the items. This was also the case with the Ethnography Gallery (Royal Albert Memorial Museum), where the themes were predominantly concerned with the geographical provenance of the artifacts, but also with religion, the main local collectors and collections and with issues relating to conservation cleaning methods for ethnographic items.

All the displays were static representations: the different ethnic groups and material cultures were displayed, side-by-side, in a sort of continuous and puzzling presentation of colonial sets, with no distinctiveness for Yorùbá culture or traditional religion. Concerning the Ethnography Galleries (Exeter), there was an attempt to underline the link between the objects and the original living cultures and to frame them in a historical context. This was achieved by presenting the objects as “evidence of the life of people in different communities.” However, the presentations were still portraying the items as artifacts out of time and space.

The typology of traditional Yorùbá religious objects varied and included mostly masks, a robe, amulets, personal ornaments, wooden figures, crowns, Ifa trays, Ogun staffs, headdresses, Ibeji figures, stools, cloths, and shrine figures. In all cases, traditional religious Yorùbá objects were incorporated into very broad categories (e.g., “West Africa,” “Nigeria,” “Amulets and Charms”), while their sacredness was neglected in favor of their practical function (Catalani, 2005). The displays presented cases concerned with religious and ceremonial objects (as for examples the cases: “Masks and Carvings,” “Amulets and Charms,” and “Magic, Witchcraft and Shamanism” in the Court of the Pitt Rivers Museum). However, there was no mention of Yorùbá religion and religious beliefs.

In general, the object labels provided information related to the place of origin of the item, the iconography, and the function. All the displays were also provided with interpretative panels. However, the text on the panels was written in a formal and academic style, containing some technical words, which required a good knowledge of the cultures on display. The voices were, in fact, the ones of the curators and it was evident that the displays were aimed at an academic and highly educated public. This is demonstrated also by the fact that the collections of the Court (Pitt Rivers Museum, Oxford) and of the Maudslay Gallery (Cambridge Museum of Archaeology and Anthropology, Cambridge) are used primarily as educational resource material for researchers and academics.

Ethnographic displays seem to reflect very broad aspects of African cultures, with limited reference and emphasis on the importance of traditional Yorùbá religion for the local contemporary Yorùbá communities. Traditional religious Yorùbá objects are therefore framed into static, often typological representations, as the “material culture’ of peoples who
have been considered . . . [an] appropriate target for anthropological research” (Lidchi, 1997, p. 161).

Religious Objects as Symbols of a Religious Experience: The Unique Case of a Religious Display

The category of religious displays consists of those displays that present different religious experiences through traditional religious ceremonial objects. In this category, it was possible to include only the Gallery of the Religious Life, St. Mungo Museum, in Glasgow. The displays of this gallery are permanent and constitute a unique example in the United Kingdom of museum displays concerned with religious material. In them, the religious essence is regarded as central to all the items and religious objects (Western and non-Western). Further, the objects are interpreted as unique expressions of the universal religious experience, and as a material way to explore other faiths and beliefs. The displays follow a continuous story line, which contributes to the dynamic aspect of the exhibition. By presenting the human experience of religion, the exhibition actualizes crucial aspects of human life and emphasizes cultural distinctiveness.

The objects in this gallery were organized according to horizontal and vertical arrangements. Additionally, few of the cases have a comfortable viewing height because some of the objects are displayed too low. In terms of display density, the vista distance was acceptable; therefore, it was possible to appreciate the religious individuality and artistic distinctiveness of the objects. Four traditional religious Yorùbá objects were displayed in the gallery: a wooden statue of the spirit of smallpox, an iroke (an ivory tapper), beadwork regalia, and a flywhisk. The gallery was provided with interpretative panels, which explained the themes of the displays. The texts of the panels and those of the caption labels associated with the Yorùbá objects were short, with a conversational yet academic style. In addition, both the panels and caption labels made use of cultural words, which often remained unexplained. The aim of the panels was to explain how people who belong to different faiths react and cope on similar occasions. The religious objects on display, therefore, were used as proof of this distinctiveness and their meaning and purpose was elucidated in light of a common religious experience. Indeed the distinctiveness of religious objects and different religions was acknowledged, and the meaning and purpose of different religious objects was put in the context of a common religious experience.

The exhibition also tried to present the view of the people whom those objects belonged to. In fact, a video and four headsets facilitated the interaction between the objects and the memories of local people. The headsets were playing sections of oral history interviews. The people interviewed belonged to different religious communities and were speaking
about their own experiences and memories related to some of the themes or objects. Additionally, the video entitled “Ways of Worship” illustrated how people from different religions communicated with the sacred. Although different religious views (Westerners and non-Westerners) were fairly represented, there was not specific reference to local Yorùbá people and their experiences.

The example of the Gallery of Religious Life in St. Mungo proves that, although the museum display of religion or religious objects is challenging, it is however, achievable to a certain extent. This confirms Arthur’s observation that “key areas of religion are elusive when it comes to museum display” (2000, p. 24). On the other hand, contemporary museums can successfully aim to illustrate “religious diversity” as well as “to foster respect for the different elements which constitute that diversity,” as in the case of the Gallery of Religious Life (Arthur, 2000, p. 24).

**Concluding Observations**

Museum displays are concerned with the representation and visual expressions of individuals, cultures, or societies. They are three-dimensional, tangible forms of human communication and as such they include all aspects of representation—including misrepresentation. The intention of this paper was to concentrate on the concepts of “interpretation” and “representation” and analyze them in relation to British contemporary, postcolonial museum displays and traditional Yorùbá religious objects in Britain. I have held that, in general, contemporary interpretation and museum representation of non-Western religious heritage are static. In addition, by presenting a variety of displays inclusive of Yorùbá traditional religious objects, it has questioned whether, notwithstanding all the purposes and idealized aims, the relationship between the Western self and the non-Western other, has really undergone profound transformations (Pieterse, 2005).

Additionally, I have aimed to demonstrate that museum displays are still very much affected by Western, artistic stereotypes. This stereotyping justifies, absorbs, and turns non-Western material culture into ethnographic specimens or art. At the same time, it considers the religious aspect only as an additional, supplementary feature of the items. Moreover, museums, a Western invention, seem to be looking at non-Western material culture through Western lenses and subordinate its religious essence and sanctity to the artistic value and ethnographic interest, which cannot “evoke the collective memory of devotees through sacred acts associated with them” (Mack, 2003, p. 120). In this way, the distinctive features of African cultures are incorporated and flattened within the general, wide-ranging label “Africa”: in the case of traditional Yorùbá religious material culture, such objects are considered, mainly as African artistic objects or as African ethnographic specimens. This duality of museum misinterpre-
tations and misrepresentations has been therefore highlighted by presenting both ethnographic and artistic displays. However, the existence of a unique museum display (the Gallery of Religious Life, St. Mungo Museum) has been acknowledged; this unique display aimed to define the religious essence of the exhibited items and their cultural individuality.

Ultimately, the contemporary displays of non-Western material culture offer visual discourses based on Western perceptions and understanding. As visual discourses, they are narratives of people’s interpretations. However, “narratives talk in different ways about what is [partially] known. They are not knowledge itself” (Bloch, 1998, p. 110). Therefore, in relation to non-Western traditional religious objects, it is essential to remember how difficult it is to communicate the meanings and feelings related to these objects. Western museums may be able to reach more informed or “authentic” interpretations if they include the memories and voices of the people who are “closer” to the original meanings of traditional religious objects.

Notes
1. The paper is based on the fieldwork carried out for my PhD research, between January 2003 and July 2005. The Ph.D. project was funded by the Arts and Humanities Research Council between October 2003 and October 2005.
2. Yorùbá people probably originated from Sudan. Nowadays there are around twenty-five million Yorùbás in the world; most of them live in West Nigeria, Togo, the Benin Republic, Brazil, Cuba, Trinidad, the United States, and the United Kingdom.
3. The term ‘postcolonialism’ does not indicate a distinct theory, but a set of complex and multifaceted ideas and problems, related to the interaction between the Western colonizers and the non-Westerner colonized. Therefore in the context of this paper, postcolonialism should be considered as “an intellectual effort at managing the aftermath of the colonial past in an era when official political relations of colonialism had all but ended” (During, 2000: 388).
4. The ten museums were: the British Museum, London (the Sainsbury Galleries); the Horniman Museum, London (the African Worlds Gallery); the World Museum Liverpool Merseyside, Liverpool (the World Cultures Gallery); the Pitt Rivers Museum, Oxford (the Court); the Museum of Archaeology and Anthropology of Cambridge, Cambridge (the Maudslay Gallery); the Manchester Museum, Manchester (the Living Cultures Gallery); the Nottingham Castle Museum and Art Gallery, Nottingham (the temporary Exhibition 125); Royal Albert Memorial Museum, Exeter (the Ethnography Galleries); the Birmingham Museum and Art Gallery, Birmingham (Gallery 36); and the St. Mungo Museum of Religious Life and Art, Glasgow (the Gallery of Religious Life).
5. The screens were part of the project called Rethinking Voices which was produced by the digital video artist Kuljit Kooj Chuhan. The people selected for the project all belonged to those local communities in Manchester. Each person had to select an item from the displays and had to give his/her own interpretation.
8. Buddhism and Hinduism.
9. This is a direct quote from the exhibition text.
10. The Yorùbá objects visible on display were in a case, containing an amulet (in the amulet and charms display); a Yorùbá veranda post (in the West African sculpture display); a lidded bowl of storing equipment for divination; a carved wooden female figure with offering bowl; two Epa masks; and an ivory figure.
11. Due to conservation concerns, it was not possible to take photographs in the gallery, unless a digital camera was used.
12. The interpretive panels were inserted in the display cases and were: birthood and child-hood, coming of age, sex and marriage, religion as profession, divine ruler, spreading the word, persecuting war and peace, death, after life, go between, Islam, Buddhism, Christianity, Judaism, and Sikhism.
13. The objects were also accompanied by some quotations from the memories of the people from the local communities.
14. The video showed seven different religious worships: the recitation of the Koran in Cairo, the singing of the Christian ‘Sanctus’, a Jewish prayer, an Hindu ceremony, a Raven Mask dance (from Canada), a Buddhist meditation, and a procession in Benin for the Oba.

REFERENCES


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The Conservator’s Gaze and the Nature of the Work

Paul Eggert

Abstract
Aesthetic philosophers, theorizing literary critics and editors, and reflective commentators on the restoration of paintings, buildings, and monuments have repeatedly shown that the concept of the work is anything but self-evident. The present essay examines major attempts to conceptualize this problematic area since the 1930s, before proposing a solution based on the semiotics of C. S. Peirce and Theodor Adorno’s negative dialectics that will help clarify thinking when practices of preservation and conservation are being determined. The language and thinking come ultimately from scholarly editorial activity; the working assumption is that, with suitable adjustments for the medium, it will apply to other historically orientated forms of cultural conservation.

Introduction
I should choose my writing to be judged as a chiselled block, unconnected with my hand entirely. (Virginia Woolf, 1908/1975, p. 325)

A theory of the work does not exist, and the empirical task of those who naively undertake the editing of works often suffers in the absence of such a theory. (Michel Foucault, 1969/1986, p. 104)

Work: only four letters, satisfyingly brief, apparently simple. In English the verb and the noun are the same, so that the concept of the work retains its direct connection to the hand of its maker. The concept loses it in most other European languages: so we have German Werk (as opposed to Arbeit), French oeuvre (vs travail), Italian opera (vs lavoro), Spanish obra (vs trabajo), Russian proizvedenie (vs rabota), and so on. Getting a grip on the...
concept is notoriously difficult in whatever language; and, by and large, editors and conservators who want to get things done avoid taking the trouble. Yet, if the nature of the work undergoing expert treatment during cultural heritage conservation or scholarly editing is assumed to be self-evident, then the danger looms that practitioners will, despite the best of intentions, misrepresent works or just flounder about with self-contradicting solutions when faced with difficult cases.

Aesthetic philosophers, theorizing literary critics and editors, and reflective commentators on the restoration of paintings, buildings, and monuments have repeatedly shown that the concept is anything but self-evident. The present essay examines some attempts to conceptualize this problematic area since the 1930s, before proposing a solution that will, it is hoped, help clarify thinking when practices of preservation and conservation are being determined. The solution on offer is unavoidably provisional in that it reflects the background of the author. The language and thinking employed here come ultimately from scholarly editorial activity; the working assumption is that, with suitable adjustments for the medium, it will apply to other historically orientated forms of cultural conservation.¹

The first step is to characterize what can loosely be called the traditional understanding. Whether the work in question is allographic (as in the case of a literary work, where any copy is an instance of it) or autographic (as in the case of a painting, where the physical object is identical with it), we have traditionally come to the question of the work with a series of assumptions: that the work is in some sense objective, standing over and apart from its maker and its perceivers and that, conversely, its histories of making and reception stand over and apart from its essential nature as a work; that the work has the potential to persist over time; and that it has an identity that sustains true descriptions of it (for example, that the Iliad is in hexameter). Performance-works, it has long been recognized, raise their own problems of definition because of the gap between script and performance (for example, Is an unsung song that exists only in written form truly a song?). But other seeming paradoxes such as, If the Mona Lisa is in the Louvre, where is Hamlet?, are readily dealt with by the allographic/autographic distinction.² This was the general understanding into the late 1960s when some memorable accounts of the literary work were put forward.

The granting of objectivity to the work placed conservation, editing, and interpretation in a position essentially external to it. The argument of the present essay is that this 1960s position was and is basically wrong; that the post-structuralist strands of thought that succeeded this position got it wrong but in another way; and that, counter-intuitively, preservation, conservation, and interpretation are always and unavoidably intrinsic to the work. Fundamental philosophical positions undergird each of these arguments. They are examined here in turn. A solution is proposed and
then applied to the problematics of historic building conservation. But, first, some examples of art conservation that expose the inadequacy of the traditional understanding and that beg the questions that this essay seeks to answer will be briefly described.

**Works in Distress**

In 2005, with the publication of its fourth volume of *A Corpus of Rembrandt Paintings*, the Rembrandt Research Project, which had commenced in 1968, was only one volume away from completing its verification of the authenticity of the many hundreds of paintings that have been claimed as authorial by successive catalogers since the late nineteenth century. Numbers have been radically trimmed from the most optimistic claims, some very significant de-attributions have been made, and other paintings queried. Historical information, extensive scientific testing, and connoisseurship have brought us as close as possible to knowing what exactly Rembrandt’s oeuvre is made up of.

July 2006 was the cause for further celebration: the four hundredth anniversary of the birth of Rembrandt. Numerous public events marked the occasion in Holland, including important exhibitions of his recently restored paintings. In the Mauritshuis art museum in The Hague, for instance, several thoroughly restored Rembrandts were proudly on show, together with reports on, and a video of, the cleaning processes that the paintings had undergone. This sort of exhibit makes for a different kind of response to the traditional one of simple admiration. We are learning to see paintings differently. This has been happening with Rembrandt in a concerted way since the late 1980s through a series of exhibitions around the world that have been curated with scholarly care and extensive research. We are regularly invited to absorb and thus to naturalize the conservatorial gaze.

This is apt to come at some cost to our preconceptions. X-radiographs on display at the Mauritshuis showed for instance that, in the famous *Anatomy Lesson of Dr. Nicolaes Tulp* (1632), the corpse being dissected (based on an executed criminal whose right hand had earlier been cut off for some other malfeasance) acquired a well-proportioned hand even though Rembrandt had originally painted him in his non-entire condition. It is not a botched job by some later perfecter. It is authorial.3

We are not used to thinking of paintings as having previous versions or of their colors as changing over the decades by different amounts; yet they do, and conservators find ways of rebalancing the paintings to approximate their (fancied) original state. This same painting had previously been restored in 1951 when an eighteenth-century addition was deliberately obscured. The addition was a numbered list of the names of the doctors watching the dissection; it was placed in a drawing held by one of
them, and corresponding numbers were added next to each portrait. The restoration of 1997–98 partially removed the obscuring medium so that now the information is just legible.

Sometimes restoration is justified by rhetorical appeal to the mastery of the artist (or alternatively to the aesthetic values of the painting as an object: the two are not the same thing but are often elided). Sometimes the ground of appeal is the painting’s historical witness: here, the fact of the interpretation being felt desirable in the eighteenth century and its taking the form it did. This restoration wants to have it both ways: to be, now with a wonderful new clarity, of Rembrandt but also (with a little less clarity) of the eighteenth century. It appeals to two different standards of textual authority (as a scholarly editor would put it) simultaneously. What is it, then, that we are seeing? What effect does such intervention have upon our notion of the work? The following example of a very famous, recent restoration will help answer the question.

Pinin Brambilla Barcilon’s restoration of The Last Supper of Leonardo da Vinci, completed in 1999, was based on an informed historical awareness of the earlier and botched attempts of her predecessors and on a comprehensive regime of photographic and scientific testing of the surface and subsurface, as well as upon access to Leonardo’s own accounts of the painting. His use of a dry rather than fresco technique left the painting vulnerable to the absorption of water, and deterioration was noted as early as 1517. Since then, numerous restorations have been attempted. Barcilon’s removing of the earlier overpaintings, her revealing of the remaining Leonardo fragments, and her undetailed and removable completion in watercolor of the painting around the fragments, was an immensely painstaking task of some twenty years. Its progress was regularly reported in newspaper stories often syndicated around the world, and usually celebrated as a heroic endeavor on behalf of Western cultural heritage. The Last Supper is an autographic work. It needed restoration and received it: so, apparently, no philosophical problem there.

Until, that is, Martin Kemp (1990) argued at a conference in 1990 that, far from being the natural and inevitable response, Barcilon’s method of restoration, like all restorations, involved critical interpretation:

I am not someone who believes that the artist’s intentions are either imponderable or irrelevant to the historian who wishes to understand the work and, by extension, to any spectator who wishes to enrich the potential of their viewing. In Leonardo’s case we are fortunate in possessing a large body of notes to help us identify his “intentions”—in the most obvious sense of this term. . . . [But any] artist’s intentions, and most especially during the deeply pondered and protracted execution of a work like the “Last Supper”, will be a complex and shifting compound of conscious and unconscious aspirations, adjustments, redefinitions, acts of chance and evasions. It is unlikely that there was ever
a stable set of transparently accessible intentions. . . . Any programme of restoration of a badly damaged and extensively repaired artefact which aims to reinstate some measure of the original experience has to make an implicit choice as to which of the artist’s intentions or groups of intentions and which of the various spectators’ criteria are to be satisfied. (p. 18)

Our “conception of what is essential in a work of art,” Kemp concludes, “determines what demands we make on visual images” (p. 20). In this case, earlier readings of The Last Supper as a history painting had determined efforts to restore it as such. Barcilon’s scientific gaze, by contrast, privileged the authorial fragment.

Compare Kemp’s conclusion to a startling reflection made in 1995 on another form of cultural preservation. Alois Pichler participated in the international text-encoding community’s efforts during the 1990s to find satisfactory methods of transcribing manuscript and print documents and of marking them up for electronic storage. The change in medium means that mark-up is unavoidably interpretative. “Our aim in transcription,” Pichler reasoned, “is not to represent as correctly as possible the originals, but rather to prepare from the original text another text so as to serve as accurately as possible certain interests in the text.” And he added: “what we are going to represent, and how, is determined by our research interests . . . and not by a text which exists independently and which we are going to depict” (1995, p. 690). In 1997 Allen Renear, a prominent member of the same community, objected to what he called this antirealist view of text, but his arguments seem finally to rest on the unproblematized notion that texts are or must be objective realities that encoders would do well to represent truthfully (Renear, 1997, pp. 117–124).^4_

Here is another case, a personal one. I began editing the Lawrence and Mollie Skinner novel set in Australia The Boy in the Bush for the Cambridge Works of D. H. Lawrence series in 1983. By 1988 it had become clear to me that my experience of this work, now that I had nearly finished editing it, was highly unusual. Radical immersion in the waters of authorial textuality is disorienting, especially to one’s preconceptions about what works are. In a paper at the 1989 Modern Language Association conference, I noted several aspects of Lawrence’s writing life that had become clear to me. Intellectually and artistically, Lawrence rarely stood still, he was ceaselessly experimental, and he worked fast. Textually, he was prolific and untidy. He produced multiple versions of most of his works whether from scratch or in revision, and where he had to prepare copy for two publishers the copies were nearly always at variance. He never finished his works in a Flaubertian way. They were always in a process of becoming or of (only gradual) abandonment—a process of working his way through related themes that did not respect publication dates. Nor was this the-
matic unfolding over time single-stranded; while writing any particular novel Lawrence was simultaneously turning his hand to writing shorter pieces, as well as reading widely.

Once this essential continuity is glimpsed one is tempted, as a literary critic, to get beyond the great-works approach and try to recover the biographical-textual mesh from which they rose to public view. But to do this, I argued, we need first to break our long-standing habit of confusing the editorially established reading text with the work. Of course, that text is commercially adaptable to popular and student formats, it is well-suited to first-time readers, and it is a reliable, common reference point for textual quotation in articles and books. It is all of these things, but it is not the literary work. For me, that had become a more capacious entity of which the reading text I established was a useful but only partial representation.

These last three cases point toward a conclusion with consequences. When it comes to the abstract question of the identity of the work that is being transcribed, Renear seems to deny the inevitability of the encoder’s mediation. Similarly, Barcilon’s reliance on scientific testing and naturalized reading practices (the seductive authorial fragment that the movie camera can linger on in close-up) also allows the hand of the conservator to disappear as a constitutive part of the object we look at. That this consolation is an illusion is exposed by the conflicting conservatorial appeals in the 1997–98 Anatomy Lesson. In the Lawrence case, my experience of tracking in a text-biographical way the continuum of writing was not matched by the commercially denominated work The Boy in the Bush, which it was my task to perpetuate in a scholarly edition.

Although Barcilon’s position is a very defensible one, although Renear’s might seem like common sense, although the new Anatomy Lesson seems to be able to eat its cake and still have it, and although the Cambridge Lawrence is a robustly pragmatic compromise, none can give us access to what does not exist: the true or real Leonardo, the essential Rembrandt painting, the printed or manuscript text in itself, or the work of Lawrence as an essence outside of the editor–conservator’s representation. The conserved painting, the transcribed text, the completed scholarly edition do not, then, exist unproblematically, whether on the wall, in the computer file, or in the Cambridge hardback. In an important sense, each is completed by its readership both during conservation and after.

This is an unsettling conclusion. It suggests that we need to know more about what works are. A closer examination of the 1960s consensus is therefore necessary.

Theory of the Work in the Late 1960s

In 1968 René Wellek and Austin Warren added an important chapter to a new edition of their influential Theory of Literature (1948), called
“The Mode of Existence of a Literary Work of Art.” It brought together and crystallized many of the insights and working assumptions of the New Criticism. That movement had emerged in the 1930s, displaced belletristic and literary-historical approaches during the 1940s and 1950s, and was itself, by 1968, on the verge of being superseded by the new post-structuralist movement.

In their essay, Wellek and Warren run through the various conceptions on which the idea of the literary work could be thought to be founded. It could not be identical with the physical medium that bears its inscription since every copy would then be a different work. It could not consist of someone’s reading it aloud since that would ignore the physical inscription and its stability, in comparison with the evanescence of performance. It could not be merely the experience or response of the reader since then the work would have no independent identity to discuss. This “affective fallacy” had been famously paralleled by W. K. Wimsatt and Monroe C. Beardsley in 1946 with the “intentional fallacy.” With the latter in mind, Wellek and Warren confirmed that neither could the work be the same thing as the experience of the author, whether during writing (since we can have no part in that experience) or via the author’s later articulations of what was meant to be conveyed in the writing (since the writer may have lost touch with the original experience and be acting now only as an interpreting reader). Rather, poems have an independent public existence: the poem is, as Wimsatt and Beardsley had put it, “detached from the author at birth and [it] goes about the world beyond his power to intend about it or control it” (1946/1954, p. 5). But there was a further possible grounding: could the work, Wellek and Warren asked, be regarded as the sum of all experiences of it, its existence granted only as a potential cause of the experiences? This ingenious explanation was however, they pointed out, thwarted by its ignoring the “structure of determination” (1968, p. 152) intrinsic to the work’s meaning. None of these groundings, then, underwrite the necessary conditions of the work’s identity over time or its capacity to be known.

This compelling diagnosis of failed definitions was unfortunately not matched by an equally clear proposal that would underpin the requisite independence from document, author, and readers. If none of the work’s manifestations in the world did the job, then invocation of an ideal identity seemed unavoidable. But how to incorporate the manifestations at the same time? While conceding that works are not ideal in the perfect way that, say, a triangle is, because they change in their readings and thus in a sense enjoy a “life,” Wellek and Warren (1968) argued that works must somehow have a “substantial identity of ‘structure’” (p. 155) and be comprehensible in relation to “a system of norms[,] of ideal concepts which are intersubjective. They must be assumed to exist in collective ideology, changing with it, accessible only through individual mental experiences,
based on the sound-structure of its sentences” (p. 156). This attempt to bring together several of the dimensions in which the work undoubtedly participates in fact bows, as we shall see, to the epistemology of Edmund Husserl and more directly to the 1930s aesthetic philosophy of his student Roman Ingarden, whose work was only very belatedly available in English. The Wellek and Warren essay hovers uneasily between this broadening and the strong underlying assumption visible in their characteristic phrase, the “concrete work of art” (p. 147).

The latter had already become a byword in literary criticism, which should therefore be primarily interested in the aesthetic dimension, not in the psychological, historical, or sociological. The term verbal icon, as Wimsatt and Beardsley had famously called it in 1954—in other words, the aesthetic object—announced an orientation that would also condition the pursuit of scholarly editing. Behind the concrete work of art lay, in some sense, an ideal text; this was to be the editor’s quarry. It was necessarily an ideal text, typically seen as the author’s intended one, which, for one reason or another, had not achieved publication in that form.

G. Thomas Tanselle brought this pursuit to an increasingly sophisticated level of definition in essays written from the 1970s to the 1990s. His conjoining of intention with the ideal required the invocation, whether at first or second hand, of the work of Husserl. E. D. Hirsch’s influential Validity in Interpretation of 1967 had shown the way. In relation to the definition of the work, Hirsch’s argument crystallized the Zeitgeist. For Hirsch (1967), the textual meaning of a literary work must be unchanging (“determinate,” p. 230) since only such a thing can act as a true object of study. “Verbal meaning,” he argues, “is that aspect of a speaker’s ‘intention’ which, under linguistic conventions, may be shared by others” (p. 218). It is “unchanging and interpersonal” and “determined once and for all by the character of the speaker’s intention” (p. 219). For published works, the author’s meaning is the publically accessible part of it—communicated intention, not what was going on in the head of the “biographical” author as such (p. 244). This communicated meaning is, as we shall see, like one of Husserl’s intentional objects.

For the scholarly editor this argument amounted to an underwriting of the ideal of the intended text of the work, which only the accidents and contrarieties of production had prevented from being realized. It would be the editor’s job, by means of comparison of the multiple versions of the work, to identify which variant readings were the impediments to that realization and to remove them, by eclectic combination of readings from different versions if necessary, thus establishing the text of final authorial intention. The rejected readings would be recorded, but only in the subsidiary position of the textual apparatus. The foundation of this conservatorial approach in Husserl’s philosophy—of which most practicing editors were blissfully unaware—needs next to be considered.
The Ideal Text: Husserl and Ingarden

The founder of phenomenology, Edmund Husserl (1859–1938), refused to entertain conceptual presuppositions. Like other epistemologists he was looking for a basis for absolute certainty in knowledge. His slogan was “To the things themselves.” By “the things” he meant acts of consciousness and the things that are constituted by them. He wanted to get clarity there before the traditional problems of philosophy were approached. His first business as a phenomenologist was therefore to describe the phenomena. He gave perceptual priority to the subject (i.e., the perceiver), postponing the question of the ontology of the object (Kant’s “things-in-themselves,” which were not accessible to the mind). He came to the conclusion that mental acts are intentional in the sense of being of or about an object—or, more strictly speaking, of or about a would-be object, something supposed to be beyond those mental acts.

A much-discussed example of Husserl’s intentionalism is how we come to know what a tree is; we can have many views of a tree but none of them fully presents the tree to us. Only the intended object as a whole (the tree itself) unifies all of the acts of perception. The “object as a whole” exists for us as an entity only because the various sensory “takes” we have of it postulate its existence as a way of ordering them. This is a separate question from whether the tree exists—which, within Husserl’s orbit of thought, comes to seem a less important one.

Husserl’s intentionalism appears to be the ultimate source of Tanselle’s view of the text of the literary work, probably as inflected by Hirsch. Tanselle concludes from the existence of many documentary texts, that seem to be versions of one another, that each represents but does not present the work. The concept of the work exists, as it were, as a way of making sense of them. The documentary texts may be said to be somewhat like sense experience—what Husserl calls “immanent,” that is, directly accessible to the mind—but the intended object (the tree, the work) is presented as transcendent, that is, outside the mind’s direct experience. In both cases there is a unifying assumption that there is an object out there (the tree, the work) that is the unity behind the disparate appearances (or documentary texts). The assumption in both cases sustains the experienced variability, allowing it to seem to cohere. This, I believe, is the basic, normally unstated warrant of the idealist argument in editorial thought.

Roman Ingarden and the Work

Husserl’s gap between the material and intentional object created the space for an aesthetic theory. His student, Roman Ingarden (1893–1970), is important here as carrying on the phenomenological flame. Ingarden’s ideas about the work would ultimately be taken up, as we have seen, by some Anglo-American aesthetic philosophers and New Critics in the 1960s, broadening their thinking in the process, and, somewhat later, by
editors of the Anglo-American school, who by and large until then had been content to understand their activity methodologically.

Given its complexity (such as I have outlined above in summarizing the Wellek and Warren arguments), the literary work, Ingarden (1931/1973) observes, “is never fully grasped in all its strata and components but always only partially” (p. 334). Although, in reading, it can only be apprehended “in the form of one of its possible concretizations” (p. 336), when reading we are usually not conscious of this distinction. Being aware of the difference between the work and its concretizations, however, gives meaning to the term, the “life of the literary work”—which is the name of one of his chapters. The fact that a work can be created, changed by revision, or destroyed by its author before publication is further evidence of its having a “life,” but also proof that, unlike a living being, it is not an “ontically autonomous object” (p. 346). It only “lives” passively, dependent as it is on readers to concretize or change it (p. 352). Ingarden accepts the implications of his observation about the life of a literary work. He recognizes that a history of readings, influencing one another over time, can change the literary work insofar as it lives in its concretizations, but those readings cannot change the identity of the literary work itself that he has already distinguished from them.

But what is this essence that is left over from the concretizations? He does not mean the physical document since that is merely a founding stratum. He has already allowed that the work is not ontically autonomous. Being only therefore, as he says, ontically heteronomous, it cannot be an ideal object. But if it is to have the separate essence postulated by his argument, it has to be in some sense transcendent, even as it always “seems to dissolve” in the “manifold variety” of its readings. At the level of sentences, he argues, the writer cannot create “genuine realizations of ideal essences or ideal concepts” but only draw on their ideal forms. The writer can “actualize” them but not—the stronger form—“realize” them (p. 362). Ideal concepts must exist, according to Ingarden (1931/1973), since without them linguistic communication would be impossible “in which both sides . . . apprehend an identical meaning content of the sentences exchanged” (p. 364). There are of course misunderstandings in real-life communication, but without ideal concepts the possibility of exchanging “identical meaning content” cannot be envisaged. So he staves off the “danger of subjectivizing the literary work or of reducing it to a manifold of concretizations” but only “by accepting the existence of ideal concepts” (p. 364) even though he is convinced the work is not one of them, or at least not in the full sense. “[I]n terms of ontic autonomy,” he concludes, the literary work “is a nothing . . . and yet a wonderful world in itself—even though it comes into being and exists only by our grace” (Ingarden, 1931/1973, p. 373).

Although Ingarden shows little bibliographic awareness, he is, as a
phenomenologist, very open to empirical and structural evidence of a work’s stages of existence and its functioning. But, at the end of the day and despite having substantially undermined it, he has to fall back on a belief in the transcendent condition of the literary work if his structure of thought is to hold. Husserl’s method of bracketing the intentional object in order to study the subject’s dealings with it had tended, given that the philosopher’s attention was elsewhere, implicitly to grant the object a steady continuity of existence independent of its contexts. In relation to the work of art, this would have seemed an uncontroversial assumption during the first half of the twentieth century, given the overhang of aestheticism, and given the doctrines and methods of modernism, formalist criticism of art, and New Criticism. (Cf. the epigraph to this essay by Virginia Woolf.) Seen in this general context, Ingarden’s book is very much a reflection of its period. That it spoke so directly to Hirsch, and to Wellek and Warren, as late as the 1960s, and filtered through them to Tanselle even later, helps explain why change, when it came, would prove catastrophic.

What Changed With the Work?: Heidegger and Post-Structuralism

The changes came, of course, with the various forms of post-structuralist theory from 1968 as they made their way—gingerly at first, triumphantly at last—through the anglophone world in the 1970s and 1980s. The new theorists adapted the radically different phenomenology of Husserl’s student Martin Heidegger (1889–1976), who, in addition to his major work *Sein und Zeit* (*Being and Time*, 1927), wrote “Der Ursprung des Kunstwerkes” (“The Origin of the Work of Art”) in the mid-1930s.

Heidegger was deeply affected by the pre-Socratic philosophers. Their successors, Aristotle and Plato, eventually made possible the Enlightenment tradition of rational argumentation based upon the subject–object split. Kant posited the existence of innate, transcendental categories within the human mind (such as causation, quality, and time) that allow us to understand the sense impressions that we receive from the outside world. For Heidegger, this artificial division into inner and outer was the root of the problem when what the early Greek philosophers had recognized as the primordial dimension of Being circulated through both and was the prerequisite for any recognition. On this assumption, no object can, strictly speaking, be bracketed for contemplation as Husserl’s method required. The Kantian tradition, which Husserl extended, had sprung, in Heidegger’s view, “not from a genuine perception of Being but from a forgetting of Being, from a taking-for-granted of the central existential mystery” (Steiner, 1992, p. 28). As soon as the essence of an object is recognized as an idea or meaning, its Being is consumed by being given directedness, as it almost automatically is, within traditional Western pro-
cesses of thought. Their idealism requires its essential being to be located elsewhere, whereas for Heidegger Being is Being-in-the-world, a living of time rather than living in it. Knowing is not a smash-and-grab raid on the object but what he calls a Being-with, a concern, a not-having-power-over.

Accordingly, Heidegger was obliged to reinterpret all forms of knowledge as orientations toward Being. So he redefines truth not in terms, as philosophers traditionally do, of the correspondence between subject and object but in terms of what he calls discoveredness:

To say that a statement is true means that it discovers the beings in themselves. It asserts, it shows, it lets beings “be seen” . . . in their discoveredness. The being true (truth) of the statement must be understood as discovering. Thus, truth by no means has the structure of an agreement between knowing and the object in the sense of a correspondence of one being (subject) to another (object).

Being-true as discovering is in turn ontologically possible only on the basis of being-in-the-world. This phenomenon . . . is the foundation of the primordial phenomenon of truth. (Heidegger, 1996, p. 201)

What then is the nature of a work that lasts for centuries or is restored after damage or destruction? In “The Origin of the Work of Art,” Heidegger argues that the work, upon its creation, discloses a previously unthought-of world by bringing its truth into being, but in doing so renders the awareness of it historical. As the centuries go by, the awareness fades even though the physical object may not: “World-withdrawal and world-decay,” he said, “can never be undone. The works are no longer the same as they once were. It is they themselves, to be sure, that we encounter there, but they themselves are gone by” (Heidegger, 1993, p. 167).

His example was the Aegina marbles, a ruined temple that King Ludwig I of Bavaria had bought in 1811 during a visit to the Greek island and carried off as a cultural treasure. The stones were restored speculatively into an integrated form and displayed in the Munich Glyptothek until the 1960s when the elements that had been fabricated to complete it were removed and the fragments alone left on display. It turned out that they had been damaged by the restoration. Unaware of this future fate and prepared to grant the nineteenth-century restorer, Thorwaldsen, his interpretation, Heidegger was nevertheless raising the question about whether what he calls “the work itself” can ever be encountered when it has been subjected to art-historical study—when it has been rendered the object of a science. (Similarly, the study of the processes of a literary work’s genesis and development through successive versions is, to the extent that it objectifies the work, necessarily inauthentic in Heidegger’s terms.11)

Heidegger’s philosophy requires a leap of faith; finally the dimension of Being is mysterious. That does not make it untrue, but the challenge of going without the traditional tools of analytical thought, which normally presuppose a subject–object division, reveals the dilemma that Der-
Derrida among other post-structuralists struggled to bridge post–1968. They continued Heidegger’s reaction against Enlightenment modes of thought and in particular against the metaphysics of self-presence implied, as they saw it, in Husserl’s phenomenology. In it, the self-presence of the object as vouchsafed to the subject was the ground of meaning. It was an ideal meaning that reduced writing, according to Derrida, to a merely cognitive operation and did not explain the iteration of meaning that allows it to be made present to readers over and over again. Ferdinand de Saussure’s structuralist account of language in which meaning is always deferred—signs refer to other signs, and meaning lying in the difference of their signification—allowed Derrida to free the workings of textuality from any anchor in intention or the writer. The ground of writing could henceforth be considered to be (other) writing, not authorship. This amounted to a new foundation, though always elusive, never achieved. Representation was the vehicle of meaning; recourse to the subject–object binary would no longer be necessary. It did not however explain the work, as witness the epigraph to this essay by Michel Foucault.

Editorial practitioners found this linguistic turn a hard pill to swallow, since they were encountering documentary traces of personal agency on a daily basis and were in the habit of inferring its intention. Nor did Saussure’s synchronic system assist with the analysis of textual processes of revision over time. Michel Foucault’s account of socially circulating discourses changing with successive epistemes or periods, and therefore of works being expressions of discourses rather than of authors, only restated the problem in somewhat more historical ways. There was a stalemate. Scholarly editing has meanwhile continued to take place, but since the 1980s in mainly silent opposition to the dominant intellectual forces of the time. This was not a happy position to be in.

**French Existentialism and Blanchot**

Although Derrida dealt with the Heideggerian inheritance directly, the route to the stalemated position actually went via French existentialist phenomenology: from Jean-Paul Sartre, through Maurice Blanchot, and then to Roland Barthes’s “The Death of the Author” (1968/1977a), the *locus classicus* for the post-structuralist decentering of meaning from author to text.

Sartre had studied the phenomenology of Husserl while in Berlin in the early 1930s, but the existentialist form of it developed by Heidegger found a peculiar resonance in post-World War II France following the cultural disaster of Nazi occupation. New foundations for meaningful living were necessary, ones that cleaned the table of old formulations. Existentialism was a heroic medicine in which the role of art, standing over and apart from the ways of the world, would be crucial. In *What Is Literature* (*Qu’est-ce que la littérature?*, 1947/1988), Sartre saw writing as necessarily
acting in the present as a form of commitment, political and personal, situated in and shared with the contemporary society or “age”—and thus, somewhat akin to Heidegger’s account of the Aegina marbles, losing its relevance upon the author’s death.12

Maurice Blanchot’s *The Space of Literature* (*L’Espace littéraire*, 1955) pushed the existentialist case further:

The goal of art *is* an object . . . a realized action which is itself activating, which informs or deforms others, appeals to them, affects them, moves them—toward other actions which, most often, do not return to art but belong to the course of the world. They contribute to history and thus are lost, perhaps, in history. (1955/1989, p. 212)

Blanchot seized the opportunity that Heidegger’s phenomenology offered to differentiate categorically between the realm or space of art and the workaday world of purposive activity on the one hand and of self-confident, yet philosophically fragile, truth claims on the other.

Art, according to Blanchot (1955/1989), was more like a substrate of reality than a place; *Being*, in the special sense Heidegger gives it, could spring from art into the ordinary world, or be accessed there, even if the disclosure (publication, say) was ultimately a compromising event. The work was not the same thing as the book, the latter being only “the approach and the illusion” (p. 23):

The writer never knows whether the work is done. What he has finished in one book, he starts over or destroys in another. . . . At a certain moment, circumstances—that is, history, in the person of the publisher or in the guise of financial exigencies, social duties—pronounce the missing end, and the artist, freed by a dénouement of pure constraint, pursues the unfinished matter elsewhere. . . . However, the work—the work of art, the literary work—is neither finished nor unfinished: it is. (pp. 21–22)

While this conclusion seems promising as a defence of the study of the genesis of a work’s making, and of the related histories of works unfolding from one another in relation to the author’s biography as I described above with D. H. Lawrence, Blanchot gives no such solace. This is because of the ultimate underpinning of the work in *Being*. The inexhaustible origin of art, Blanchot maintains, is quite impersonal: the writer cannot claim to be its source but can only give himself or herself up to it: “The poet only speaks by listening” (p. 226).

Thus Blanchot (1955/1989) disassociates the work from the writer’s ordinary self: “To write is to break the bond that [in speaking] unites the word with myself” (p. 26); “it is [the writer’s] not being himself” (p. 28). Therefore literature’s imaginary space is one where no-one abides: “No one who has written the work can linger close to it” (p. 24), not even the writer. Yet, because it is a void, it lends itself to having its meaning appropriated by successive generations of readers; it is gradually “filled up with everything it isn’t” (p. 11):
The work of art does not refer immediately back to the person who presumably made it. When we know nothing at all about the circumstances that contributed to its production, about the history of its creation—when we do not even know the name of the person who made it possible—it is then that the work comes closest to itself. (p. 221)

The line from this isolation of the work from the author to Barthes’s aim of liberating the reader from the authoritative shackles of writerly intention becomes apparent in his essay “From Work to Text” (in French, 1971), especially in his catchphrase: “the work can be held in the hand, the text is held in language” (1971/1977b, p. 157). For Barthes, like Derrida, the author’s life offered no point of origin for texts and therefore no hope of explanation for them. Existing only in language, texts could have neither origin nor closure. Given that their fate was to be traversed again and again by readers, texts could be experienced “only in an activity of production,” and were therefore irreducibly plural (p. 157). Participating in larger cultural flows of meaning, they were neither stable nor time-bound objects.

This became an influential position. It signally rejected the existing literary-critical understanding about works, and it left the editing of works and the study of their genesis out in the cold. And yet, despite that, the last twenty to twenty-five years have seen a flowering of a new kind of editorial and textual theory. While borrowing terms and benefiting from some of the habits of thought that post-structuralism rapidly naturalized, these new forms of editorial theory have had essentially to work from the overlooked or neglected empirical realities of documents. Attention turned to enunciating the importance of textual process (the genesis of versions of a work) rather than of finalizing its text as an authoritative “product”; to the theoretical and practical exploration of opportunities in electronic editions that would be capacious enough to document these textual processes; to the importance of linking particular texts, regardless of their authority, to their historical audiences; and to the peculiarities of the physical document itself, especially its mise-en-page. Its presentation could be considered a site and source of meaning, complicating that of the linguistic text with which earlier editors had been solely concerned.

In these ways, liberation from the final-intentions school of postwar Anglo-American scholarly editing has opened doors—but, ironically, to much the same dimensions of works that Wellek and Warren, and Hirsch, were ushering into anglophone consideration in their essays of the late 1960s. Despite typically rejecting the ideal-text assumptions of editing—and thus, in effect, rejecting the Husserlian legacy—editorial practitioners have usually found little support in Heidegger. A theory of the work that might ground what editors do still does not exist, “and the empirical task of those who naively undertake the editing of works often suffers in the absence of such a theory” (Foucault, 1969/1986, p. 104). Foucault’s
warning is no less true today, despite the welcome broadening of attention to the workings of the work, if one may put it that way, that practitioners have been recently engaged in.\textsuperscript{14} So . . . stalemate from another direction.

\textbf{Whither Away for the Work?: Peirce and Adorno}

What then is the way forward? I see two possibilities. The first would be to adopt or adapt as a basis for a definition of the work a text-defining semiotic that recognizes agency and history, rather than the synchronic model of Saussurean structuralism upon which post-structuralism rested. The American inventor of the doctrine of Pragmatism, C. S. Peirce (1839–1914), philosophized in many areas, but at the center of his thinking was a semiotic that bypassed the subject–object binary. Peirce went back to the medieval scholastics, including St. Augustine and Duns Scotus, to retrieve a missing third term—semiotic. The effect of inserting semiosis (or the process of communication that mediates knowledge) into the subject–object relation is that it becomes triadic; the object cannot be directly available to knowledge if it can only be represented by the sign. The sign or representamen, according to Peirce, is “determined” by its object; it functions by creating (“determining”) an interpretant, which may itself stand as a sign to a later interpretant, and so on.

It can be difficult to appreciate the fundamentality of Peirce’s semiotic at first. Peirce was trying to define the theory of the sign to stand as his logic and thereby as the basis of his metaphysics and epistemology. To humanize or psychologize the operation of the sign would compromise this fundamentality. Thus, the interpretant is not a person; strictly speaking, it is the counterpart of the representamen and stands in an equivalent or developed relation to the object. The sign as a whole is therefore a relation, in fact tri-relational; it is not a thing, although a thing may become a sign if it takes on that relational function.\textsuperscript{15}

From this apparently severe semiotic Peirce developed a wide-ranging philosophical system usually referred to as pragmatism.\textsuperscript{16} His failure to publish an elaborated and complete form of it notoriously causes problems for those who would elucidate it from the basis of his occasional essays, reviews, letters, and very extensive, often undated manuscripts. The failure also helps explain his comparatively meager influence so far, as does the fact that the place that his semiotic might have occupied was taken by twentieth-century Saussurean structuralism. The latter is, in contrast to Peirce’s, dyadic (i.e., two-termed; signifier versus signified), synchronic (the linguistic system is analyzed at a chronological moment), and systematic (meaning is based on difference between terms in the system rather than, as for Peirce, on its practical outcomes or further development).

Peirce’s incorporation of the interpretant into the definition of the sign means that semiosis is understood as ongoing and diachronic.\textsuperscript{17} Every
sign, therefore, “is essentially incomplete and . . . essentially developable” (Gallie, 1952, p. 129). Development requires a notion of community; indeed, Peirce stressed continuity rather than arrival in what he called the path of inquiry. Insofar as the “real” and the “truth” could be said to exist at all, they were only the limiting conditions of this continuity. They committed the community of inquirers to the testing of the always provisional truth-claims—just as scientists do, routinely. Public truth or “the real” is said to be “the idea in which the community ultimately settles down.”

Individuals and communities therefore may be said to participate in semiosis, but it does not originate in them (cf. Riddel, 1995, p. 86). Peirce commented in a late essay of 1905, “What Pragmatism Is”:

[A] person is not absolutely an individual. His thoughts are what he is “saying to himself,” that is, is saying to that other self that is just coming into life in the flow of time. When one reasons, it is that critical self that one is trying to persuade; and all thought whatsoever is a sign, and is mostly of the nature of language. (Peirce 1931–58, 5.421)

If even our private reflections function semiotically, then there can be no constitutive origin for meaning or knowledge outside semiosis, either in the self or in unmediated Heideggerian Being. There can, accepting this line of argument, be no “capital A” Author as pure source of the work. According to Peirce, there never is an “I” thinking (or writing or reading) that is knowable independent of the signs that signal the activity. And just as there can be no knowable, originating, unitary presence or Author outside of semiosis, so there can be no Work whose ontology is secured by that Author. Rather, textual agency is restricted to those who are involved in the ongoing semiosis. If Peirce is right then, first, process is of the nature of the Work (which presumably now takes on the lower case w and functions only as a regulative idea, not an ideal); and, second, the activity of each reader in creating the interpretant is part of the work.

Textual agency is not a Peircean term. Although, in his system, the operation of the sign is infinitely regressive, it is transactional. Therefore, if one extrapolates from his austerely logical starting point where semiosis is conceived as a purely functional relation, the production of both the representamen and the interpretant can be seen in practice to require agency. Nowhere is this more evident than when the production takes physical form in a document. In other words, a bibliographical extension of Peirce’s account of semiosis might form the ground of a new conception of the work.

The importance of the physical object—the documentary dimension of textual communication—is something that philosophers are apt to overlook or treat as trivial. This is despite the fact that the document is the pathway into the past. But it is only a pathway: the act of reading, of reviving the represented idea, reinvokes the unpredictabilities and flux
that are always part of semiosis. Meanwhile, the document itself remains unaffected, stable, and open to contrary readings. This documentary dimension might give Peirce’s idea of the community of inquirers a force it presently lacks, given that it would generate the need for an account of the slowly changing linguistic conventions that allow communities to make sense of documents from the past. In the moment of reading, the document is inevitably a record of and from the past and lies at the cross-section of other histories: of the book trade, generic conventions, readerships, and political, social, and other discourses. For readers it is the point of departure and return. Its stability provides the point of focus enabling profitable disputation (in the present) about the interpretant, which may be differently inflected by every reader.

Adorno and Negative Dialectic

This proposed convergence of semiosis and bibliography, which may seem a strange one at first, requires recourse to the only other possible way out of the stalemate that I am able to see: namely, to adopt a chronological model of the continually unfolding relationship between document and text, or between cultural object and interpretation.

The writings of the Frankfurt School philosopher, Theodor Adorno (1903–69) offer such a model. It is not Adorno’s aesthetic theory that I find helpful but rather his central concept of negative dialectics. Giving the Kantian notion of the subject–object binary an epistemological twist, Adorno argued that subjects, situated in history as they are, are not identical with themselves over time. Nor therefore can the object stay still, or be self-identical, since it can only be known, over time, as it “entwines with subjectivity” (Adorno, 1966/1973, p. 186). As a result, non-identity as between subject and object has to be taken as the basis of knowledge. The subject does not, after Kant, passively measure the object against a repository of categories that it holds in mind. Rather, through a process of reaching out toward the object, the subject seeks to approximate it mimetically in all its concrete particularity (to use a Frankfurt School term). Adorno refers to this process as “exact fantasy”: the subject transforms the object “into a new modality”; it is not a replication but a translation (Buck-Morss, 1977, p. 88). Peirce had rejected the subject–object binary at its base and replaced it with a tri-relational semiotic. Adorno locks subject and object together in an experiential embrace. Such requires the other’s difference in order to secure its own identity. Each is, as it were, a constituting principle of the other. This rules out any appeal to an ontological ideal imagined as standing outside the process. Semiosis had a similar result for Peirce.

Take the relationship between nature and history. When beliefs that were once resisted become accepted over time, they are granted what Adorno calls a second-nature status—they are naturalized—only in turn to have their naturalness challenged by awareness of their history of be-
coming. The process is dialectical but not leading to a higher synthesis, to
a transcendental reconciliation of subject and object—as with Hegelian
dialectic, at least as it is popularly known. Rather, the dialectic is nega-
tive in that it is based on awareness of the historicity in nature and of the
naturalness in history. The one mediates the other.21 In short, a negative
dialectic describes an ongoing, antithetical but interdependent identity-
relationship that unfolds over time.

There are possibilities here, which Adorno himself did not pursue, for
conceptualizing the ways in which authors, editors, and readers “perform”
literary works—or concretize them, to use Ingarden’s term. Adorno’s fa-
vorite example is the way in which a translation transforms its original text
into something new. We might think that, in the act of reading, the text
with which we engage and which we seek mimetically to approximate or
perform is the literary work itself. But a little bibliographic attunement
shows that it is a document of paper and ink that bears a text that we raise
in the act of reading. While in Adorno’s sense the document is a natural
object, it is also a socially produced one that anticipates the observance of
accepted conventions of raising meaning. The document, whether hand-
written or printed, is the textual site where the agents of textuality meet:
author, copyist, editor, typesetter, and reader. In the acts of writing, copy-
ing or reading, the work’s documentary and textual dimensions dynami-
cally interrelate; they can be seen as a translation or performance of one
another. They are, in this sense, one another’s negative constituting prin-
ciple. Document, taken as the material basis of text, has a continuing his-
tory in relation to its productions and its readings. Any new manifestation
of the negative dialectic necessarily generates new sets of meanings.

A consequence is that, if the documentary and textual dimensions are
one another’s negative constituting principle, then neither has a secure
identity in itself. In other words, we need potentially readable text before
paper and ink can constitute a document. To have text, we need a mate-
rial document (in any medium, whether printed, a computer-screen visual-
ization, or sound waves in an act of vocalization). The two dimensions
are conceptually separable but linked in practice. The work emerges only
as a regulative idea, the name or container, as it were, of the continuing
dialectic. The ongoing or recorded existence of the document is enough
to link all the textual processes that are carried out under the name of
the work. And bibliography is a technology for describing and relating its
allied documents.

Following Ingarden, we can say that this is the “life” of the literary
work—but without accepting the idealist belief that, for him, goes with
it. Peirce’s account of semiosis allows us to dispense with that; and its ca-
pacity, when applied as I have suggested, to incorporate agency and dia-
chronicity sits happily enough with Adorno’s unfolding dialectic. From
Adorno we can define a concept of the work that does not sublate or
supersede the empirical workings of textuality. The “work” can be seen as a phenomenological concept—not in the full, Husserlian sense of an intentional object, but in the weak sense that it operates as a regulative idea that immediately dissolves, in reading, into the negative dialectic of document and text. Seen as a regulative idea, the “work” retains its function as a pragmatic agreement for organizing our remembered experiences of reading documents that are closely related bibliographically and for delimiting the relevance of documents being investigated for their relevance to an editing project: for an edition of the “work.”

Seen in action the “work” unravels, in every moment of its being, into a relationship between its documentary and textual dimensions. If it can, then, no longer be imagined as a historical object (as in Tanselle’s “intended text”), then the idealist position that seeks to secure its self-identity must be abandoned. The dynamic principle I am proposing is offered as an alternative that answers to the richly various lives of the work to which editorial commentators have been drawing attention since the 1980s.

If such is the basis of the textual condition, then the editor (like every other reader) can never get outside it; the work can never be an object on which he or she works. Instead the editor must have—a participatory role in the life of the work. The editor’s main work is textual; it leaves a documentary testament. Editions (as documents) represent the work by extending its life, by making further textual encounters possible: there can be no definite closure to a negative dialectic. One thing we can say for sure is that the work is not an aesthetic object if only because that traditional formulation collapses these interdependent dimensions.

**Buildings and Monuments As Works: the Obligation of Their Carers**

But can this conclusion be extended to include artistic works, historic buildings, and monuments? Potential complications should not shut down the attempt to map the conclusion across. Some remarks of Gary Taylor suggest a pathway. He is the general editor of a project to edit the works of Thomas Middleton (1580–1627), a playwright whose achievement has always been occluded by that of his great contemporary, Shakespeare. “How can you love a work, if you don’t know it?,” Taylor asks. “How can you know it, if you can’t get near it? How can you get near it, without editors?” (1993, p. 133). This simple, rhetorical argument could equally be applied to the conservation of historic buildings or the restoration of damaged paintings: you can’t love them if you can’t see them or touch them: if you can’t, in Heidegger’s sense, be-with-them. But this still leaves unresolved exactly what the “it,” that Taylor speaks of, consists in.

To envisage the work as I am proposing, as constantly involved in a negative dialectic of material medium (the documentary dimension) and meaningful experience (the textual), and as being constituted by an...
unrolling semiosis across time, necessarily interweaved in the lives of all who create it, gaze at it or read it, is to recognize, among other things, the roles of agency and time. Depending on the perspective in play, the agency of authorship broadly considered (whether of playwright, architect, sculptor, or editor) may be foregrounded; some intending person or persons had to create the “document,” which, from this point of view, will be forever embedded in that moment. Equally the latter experience, the unrolling semiosis, may be focused on: the role (or, as an editor would say of a readership, the authority) of the people, say, who lived around the historic building may gain significance. It certainly did for Ruskin in 1849 as he considered the plight of fourteenth-century English churches subject to the new, religiously-inspired craze for restoration: “We have no right whatever to touch them,” he declared. “They are not ours. They belong partly to those who built them, and partly to all the generations of mankind who are to follow us. The dead still have their right in them.” The walls “that have long been washed by the passing waves of humanity” only gradually acquire their living value—what he called “that golden stain of time” (1910, pp. 358, 339, 340).

From this point of view, to detach the work from its idealist grounding in the absent architect-author does not necessarily remove the basis of its identity. To think of the building or monument as a work rather than merely a three-dimensional (documentary) object is to recognize that its meanings are not fully determined in advance by builder or architect. They are also assigned (in the textual dimension) by those who come into contact with the (documentary) object. Semiotic appeals to meaning will be embedded in conventions of reading architecture, in the functions of buildings within broader circulating discourses, and they will be assigned variously, and change over time. Thus, adapting Adorno, the building as work does not stay identical with itself.

This stands to reason. The historic building, any historic building will always have been in a process involving, in varying degrees, conscious alteration, accidental change, and natural decay. The building does not and cannot have a stable constitution. Given the loss of furnishings, the limitations of contemporary catalogs of furniture and decorations by which the present deficiency might be made good, the usually radical changes in the surrounding gardens (the effect of natural growth, neglect, or changes in style of gardening) and loss of land through subdivision and sale; given also the common absence of original plans and (depending on the age of the building) of photographic documentation of it, and the limited helpfulness of early watercolor and other sketches—given all of these factors, a historic house cannot be reliably returned in every detail to its original condition, even if this were desirable. And yet most visitors to heritage buildings believe this is what they are seeing. They want to believe that the Neoplatonic ideal of the house-as-it-originally-was is here embodied.
If conservators and curators necessarily participate in the building’s unrolling semiosis, in the life of it as a work, then they need to accept the responsibility that this awareness entails and not cater to illusions. Nor should they pretend to stand outside it as if it were only a (documentary) object to which they apply their science and taste. Management plans for historic buildings that appeal in a 1960s way to the famous architect as guarantor of the building-as-work’s near-perfect integrity—almost as if it were a poem or painting, a “concrete work of art”—need to beware of appealing in the next sentence to the necessity of preserving the historical witness of the building’s original fabric. Both appeals falsely objectify the building. Appeals that flip-flop between historical and aesthetic groundings for the work are not likely to lead to coherent editorial solutions.²²

Historic buildings exist and persist, if they are suffered to do so, as “document,” stolidly awaiting their fate. Meanwhile their further semiosis unrolls in the lives of their inhabitants and of passersby. Buildings continue to undergo change in response to people’s needs. Clearly, the preservation of the documentary fabric must be the primary aim and ethic of conservators. This is what conservation must conserve since, without it, that life of the building as a work is impossible or impoverished. We would not be able to get “near” it. But, in this formulation, what is the “it”? It is not an object pure and simple, since, under the conservatorial gaze the building’s documentary fabric cannot be left alone. Some attitude toward its preservation must be arrived at, some standard appealed to. This involves making choices about what aspect of the building’s life, what source of authority for its presentation as a work, the conservator will decide to respect. And what alterations or partial destruction will be deemed necessary so that the general public can be “near” it.

The documentary dimension of the building only functions under the conservatorial gaze as fabric insofar as it is part of a negative dialectic with its interpretations. There is no innocent, no inevitable policy available, even though the simple, common-sense language of such heritage-policy documents as the Venice Charter of 1964 and the Australia ICOMOS Burra Charter of 1992 give rise to the hope that there is. We have to accept that the conservation and the curation will inevitably alter the nature, by shifting the grounds, of the building’s continuing semiosis.

Honest curation will declare the compromise, will declare its interpreting hand. Whether, say, the building and contents have been preserved so far as possible to represent some point in their history, or perhaps as an inevitably partial and selective three-dimensional diary of the lives of the generations of families that have lived in it. Usually, with historic buildings, curation performs something of the function that annotation does in a scholarly edition, selectively pointing the reader-viewer toward what to look for in the fabric, giving advice as to how to read its historical testi-
mony, and therefore by implication how to understand the conservatorial orientation and policy that have been applied.

The expansion over the last twenty years of the possible, legitimate grounds of textual authority for the editing of literary works has been paralleled by more flexible policies of curation, such as those I have just described. In both pursuits, the avoidance of ad hoc or self-contradictory policies could be avoided, and aims clarified, by a more conscious understanding of the nature of the work. The present essay is offered as a contribution to that debate.

Notes
1. Together with new work, this essay adapts material from other essays by the present author listed in References and Additional Reading.
2. It is Nelson Goodman’s (1968, chap. 3). Other definitional problems lay in wait for it: silk-screen prints, conceptual art, arte povera and found objects, and protest art where commercially printed or manufactured objects deliberately replace handmade or painted ones.
5. Tanselle avoids talk of “ideal” texts but his argument that the intended text of the work is historical though unachieved implies ideality: see Eggert (1998c). The text can be the one intended by whomever the editor deems to be the source of authority for the purposes of the edition—not necessarily the author.
6. Husserl’s postponing extended to any subject-independent entity whether noumenal (things-in-themselves) or phenomenal (their appearances). He wanted to study the constructivity of the mind—not the empirical objects nor their phenomenal appearances, but the experiencing of objects by the mind. He invented the special meaning of the existing term phenomenology to cover this interest.
7. See Tanselle (1990, p. 31 and n. 9) [an essay that originally appeared in 1976].
9. Grabowicz (see preceding note) reports that in the Polish revised translation of 1960 Ingarden “warns that he now questions [the] existence” of ideal concepts; this reflects his “later commitment to realism” (Ingarden, 1931/1973, p. lxi).
10. Grabowicz—who is very sympathetic to Ingarden’s thought—is less circumspect in his averrals that the work is a “purely intentional formation, ‘transcendent to all conscious experiences, those of the author as well as those of the reader’” (Ingarden, 1931/1973, p. lviii; the last is a quotation from Ingarden’s The Cognition of the Literary Work of Art, orig. in Polish 1937). When Grabowicz tries to draw out the idea, he states that the work is “finally an intersubjective intentional object [i.e., in relation to all readers] constituted . . . on the basis of a constant and faithful intentional reference to some given real object which is the work of art itself” (Ingarden, 1931/1973, p. xxi). The definition is circular, and it leaves aside the question of the way in which the work may be said to be “given.”
11. In her forthcoming book, Text as Process: An Exploration of Creative Composition in the Work of Wordsworth, Tennyson and Emily Dickinson, Sally Bushell argues that there is room in Heidegger’s thinking to allow such study despite its admitted inauthenticity (see chap. 10).
12. Sartre defines as a “new absolute . . . The age [which] is the intersubjectivity, the living absolute, the dialectical underside of history” (1947/1988, p. 241). The link between Barthes and Sartre is made in Bushell (in press), Text as Process (see preceding note). She comments that awareness of it “should cause a re-definition of our understanding of what Barthes means by his title [‘The Death of the Author’] and a reminder of the historicized nature of his statement” (chap. 2). I thank Sally Bushell for allowing me to quote from this work prior to its publication.
editing, see Finneran (1996) and McGann (2001). For the linking of texts to their audiences, see McKenzie (1986). For meanings in physical documents, see any of the writings of Randall McLeod, e.g. for example, “Enter Reader” (1998) [where the author’s name is playfully given as “Random Cloud”] and McGann (1991).

14. German historical-critical editing practice claims, or at least claimed, to be grounded in Prague structuralism, from which source it took its definition of text as a semiotic system altered by any alteration of words or punctuation in it. The central job is therefore to construct an archival apparatus of variants around any one of the extant texts of the work. There is no warrant for the textual intervention by appeal to intention typical of Anglo-American editions. In my view, the claimed grounding has led to some contradiction and complacency: see Eggert (1998a).

15. Nevertheless Peirce sometimes despaired of being able to explain his conception. In a letter of 23 December 1908 to Lady Welby he wrote: a sign is “anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I call its Interpretant, that the latter is thereby mediately determined by the former.” He goes on to say “My insertion of ‘upon a person’ is a sop to Cerberus, because I despair of making my own broader conception understood” (Hardwick, 1977, pp. 80–81).

16. Peirce is chiefly remembered for the doctrine that the meaning of an idea lies in its practical outcomes, but this ignores the semiotic underlay that was at the center of his thinking. Even in a quite early essay he wrote: “Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object” (Peirce 1931–58, 5.2 [i.e., vol. 5, numbered paragraph 2]). A modern edition of Peirce’s works is in progress, though it will not be a complete works. For commentaries on Peirce’s philosophy, see Gallie (1952), Apel (1981), Hookway (1985), Keeler and Kloesel (1996), and Keeler (1998).


18. (Peirce 1931–58, 6.620). Peirce himself had been a research chemist, and this was undoubtedly the source of his model. See further Searle (1994).

19. Bibliographical questions seem not to have impinged on Peirce’s accounts of semiosis. Signs he says are not things; things (objects) cannot be replicated, only represented. Representations, however, can be replicated: “Look down a printed page [Peirce once remarked], and every the you see is the same word, every e the same letter. A real thing does not so exist in replica”; quoted in (Keeler, 1998, p. 175), from a Peirce manuscript of 1904. Peirce denies that ideas can be reproduced: “taking the word ‘idea’ in the sense of an event in an individual consciousness, it is clear that an idea once past is gone forever, and any supposed recurrence of it is another idea” (Peirce, 1931–58, 6.105). This is because any representation of the idea creates its own, new interpretant. The same would be true of the idea in printed form as the reader raises the documentary representation onto the level of text. The meaning raised is never absolutely predictable from the documentary representation, for, as Peirce says elsewhere: “no Sign is absolutely precise . . . and indefiniteness is of two kinds, indefiniteness as to what is the Object of the Sign, and indefiniteness as to its Interpretant” (Peirce, 1931–58, 4.543).

20. Aesthetic Theory was collected only after his death. It is partly caught up in Walter Benjamin’s broad-brush Marxist rejection of “the aesthetics of genius” (Adorno, 1970/1984, p. 244)—the work seen as the reflection of the creative personality. Adorno saw it as a facile explanation of a complex process and Benjamin as a capitalist diversion from the real business of the artist’s altering the relations of production. For Adorno, the “artist’s absolute act [of putting pen to paper, brush to canvas] . . . is of minuscule importance” (1970/1984, p. 239). However “the moment of making or fabrication” is of importance (p. 244) because the artist, at that moment, “functions as the executor” of the relation between subject and object (p. 2389). But Adorno’s major interest in art is its potential to help us escape political ideology and social repression: the rise of fascism and the failure of Marxism deeply affected his thinking.

21. As Adorno once famously said: “History is in the truth; the truth is not in history” (as cited in Buck-Morss, 1977, p. 46). Adorno did not invent the notion of negative dialectic; it goes back to Socrates and early Plato.
22. Eighteenth-century editors who improved Shakespeare’s lines on the grounds that the master could not have been capable of imperfect metremeter (i.e., editing by an aesthetic criterion) have long been the butt of jokes. Their taste did not last the historical distance.

REFERENCES


**Additional Reading**


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Abstract
Just as the Cold War came to an unexpectedly peaceful end in 1991, a series of wars engulfed the former Yugoslavia. The Balkan wars brought about the deaths of hundreds of thousands of people and the forced dislocation of millions more, singled out for persecution because of their ethnic and religious identity. The violence against human beings was accompanied by the systematic destruction of the cultural record—libraries, archives, and other cultural heritage. This article is an attempt to put the destruction of libraries during the wars in Croatia, Bosnia-Herzegovina, and Kosovo into a broader theoretical and legal context. It examines patterns and methods of destruction, the track record of legal and practical measures to protect endangered collections in time of armed conflict, the ongoing quest to bring those responsible for attacks on libraries to justice, the responses of the international community and of the library community to this cultural catastrophe during the war and in the post-war period, and the growing recognition of the nexus between cultural heritage and human rights. It also addresses the troubled aftermath of ethnic conflict and the perils of reconstruction in a post-war environment, in which libraries continue to be endangered by nationalist politics.

Europe’s Backyard War
The fire lasted into the next day. The sun was obscured by the smoke of books, and all over the city sheets of burned paper, fragile pages of grey ashes, floated down like a dirty black snow. Catching a page you could feel its heat, and for a moment read a fragment of text in a
strange kind of black and grey negative, until, as the heat dissipated, the page melted to dust in your hand. (Librarian Kemal Bakarić [1994], on the burning of the National and University Library of Bosnia-Herzegovina, Sarajevo)

At the beginning of the final decade of the twentieth century, after nearly half a century of a tense confrontation that had threatened all of humankind with nuclear annihilation, the Cold War ended with surprising suddenness and without major bloodshed. But while Western leaders’ attention was focused on the collapse of the Soviet Union and on the challenges of establishing a common European currency, war broke out in Europe’s backyard.

The Socialist Federal Republic of Yugoslavia (SFRY), whose prosperity had been due in part to its status as a nonaligned country courted by both sides during the Cold War, disintegrated in a series of bloody armed conflicts that continued for a decade: Slovenia 1991, Croatia 1991–1995, Bosnia-Herzegovina 1992–1995, Kosovo 1998–1999, Macedonia 2001. The wars of the breakup of the former Yugoslavia brought death and destruction to the region on a scale not seen in Europe since the end of World War II. By the time the fighting was over nearly a quarter of a million people were dead or unaccounted for, more than 2.5 million had been turned into refugees, and hundreds of villages and entire cities had been reduced to ruins (Silber & Little, 1997).

From the beginning, the hostilities were characterized by two features that had little to do with legitimate military objectives:

- “Ethnic cleansing”—the mass expulsion of civilians, driven from their homes, robbed, raped, and murdered for being of the “wrong” ethnicity and religion (Cigar, 1995)
- The systematic and deliberate targeting and destruction of cultural, religious, and historic landmarks, including libraries and manuscript collections, archives, and houses of worship.

**Dubrovnik**

Emblematic of the many acts of cultural destruction of the Balkan wars was one of the first such attacks, the siege of the medieval walled city of Dubrovnik, designated for special protection as a UNESCO World Heritage Site since 1979. The old town center and some eight thousand civilian residents trapped inside the besieged city were subjected to months of heavy bombardment from land and sea by the Serb-led Yugoslav People’s Army (JNA), from October 1991 until early 1992. On December 6, 1991, the worst day of the siege, international observers recorded large-caliber shells landing in the old town at a rate of fifteen per minute. Of the 824 buildings located within the historic city walls, two-thirds were damaged or destroyed; more than eighty people were killed during the siege (Nodari, 2000; UN Commission of Experts, 1994).
Dubrovnik’s libraries were also among the targets during the siege. The library of the Inter-University Center, an independent research institute established in 1971, was bombarded with incendiary munitions on December 6, 1991, and was burned, its collection of 30,000 volumes a total loss. On the same day, another volley of rockets fired from JNA positions on the heights overlooking the city hit the sixteenth-century Skočibuha palace, home to the Dubrovnik Scientific Library (Naucˇna biblioteka Du-brovnik) with its 922 medieval manuscript codices, its archive of the correspondence of Dubrovnik scientists and scholars from the Renaissance era, and nearly a quarter of a million printed books, 13,490 of them acquired before 1808, the date when the ancient city-state lost its independence. Although the building suffered such serious damage that it had to remain closed to the public after the war, the Dubrovnik Scientific Library’s collection was saved by the efforts of the librarians. Library director Mirjana Urban’s twenty-three-year-old son, photographer Pavo Urban, was killed by the JNA shelling on December 6 while trying to document the damage (Aparac-Gazivoda & Katalenac, 1993; Blažina, 1996; Monografija Pavo
Urban, 1992). As the UN War Crimes Tribunal for the former Yugoslavia (ICTY) later concluded in its judgment, when it convicted the Serbian general in command of the besieging forces of criminal responsibility for the destruction of cultural heritage in Dubrovnik, there had been no legitimate military targets in the old town at the time of the JNA attack (Prosecutor v. Pavle Strugar, 2005).

Sarajevo

In April 1992 it was the Bosnian capital Sarajevo which came under siege by JNA forces firing at the city from emplacements on the surrounding hills. This time the siege lasted for three and a half years. An estimated 12,000 of the city’s 350,000 residents were killed by shelling and sniper fire; 50,000 more were wounded. The siege of Sarajevo also resulted in what may be the largest single incident of deliberate book-burning in modern history. The target of the attack was Bosnia’s National and University Library, housed in a handsome Moorish Revival building built during the 1890s in the old town center as Sarajevo’s city hall. Before it was burned, the National and University Library held an estimated two million items, including special collections, rare books and manuscripts, unique archives, maps, and ephemera, and the national collection of record of books, newspapers and journals published in Bosnia-Herzegovina, as well as the main research collections of the University of Sarajevo (Kujundžić, 1996; Zečo, 1996).

In a three-day inferno, August 25–27, 1992, the library was gutted, the greater part (an estimated 90 percent) of its collections reduced to ashes. About half an hour after nightfall on August 25 a barrage of incendiary shells fired by Serb nationalist forces from multiple positions on the heights overlooking the library burst through the roof and the large stained-glass skylight, setting the book stacks ablaze. The library’s longtime deputy director, Dr. Fahrudin Kalender, watched horrified from the window of his apartment, across the street from his workplace, as the phosphorus shells landed on the roof of the library, sending out fans of sparks until the building was engulfed in flames. Repeated shelling kept rekindling the blaze, while sniper fire, mortar shells and anti-aircraft guns aimed at sidewalk level shredded fire hoses and targeted firefighters and volunteers attempting to save books from the flames (Riedlmayer, 2002). Two veteran foreign journalists based in besieged Sarajevo filed eyewitness reports from the scene:

[The National Library] was blazing out of control Wednesday after the besieged Bosnian capital came under fierce bombardment overnight. Firefighters struggling with low water pressure managed to extinguish the blaze several times during the night but the building . . . kept coming under renewed attack . . . By mid-morning, the north and central sections of the crenelated four-storey building were completely
Figure 2. Sarajevo, Bosnia-Herzegovina. The National and University Library of Bosnia and Herzegovina, ablaze following bombardment by Serb nationalist forces, August 26, 1992. (Photo courtesy of the National and University Library of Bosnia and Herzegovina.)
engulfed by flames. Windows were exploding out into the narrow streets and the building’s stone north wall was cracking and collapsing under the heat of the raging inferno. . . . The fire started shortly after 10 p.m. on Tuesday night and, despite the efforts of the city’s fire department, kept reigniting and growing. The slender Moorish columns of the Library’s main reading room exploded from the intense heat and portions of the roof came crashing through the ceiling. (Schork, 1992)

Serb fighters in the hills ringing Sarajevo peppered the area around the library with machine-gun fire, trying to prevent firemen from fighting the blaze along the banks of the Miljačka river in the old city. Machine gun bursts ripped chips from the crenelated building and sent firemen scurrying for cover. Mortar rounds landed around the building with deafening crashes, kicking up bricks and plaster and spraying shrapnel. Asked why he was risking his life, fire brigade chief Kenan Slinić, sweaty, soot-covered and two yards from the blaze, said: “Because I was born here and they are burning a part of me.” (Pomfret, 1992)

Braving a hail of sniper fire, librarians and citizen volunteers formed a human chain to pass books out of the burning building to trucks queued outside. Interviewed by a foreign journalist, one of them said: “We managed to save just a few very precious books. Everything else burnt down. And a lot of our heritage, national history lay down there in ashes” (ABC News, 1993).

Among the human casualties was Aida Buturović, a thirty-two-year-old librarian in the National Library’s international exchanges section. She was killed by a mortar shell as she tried to make her way home from the library. Amid the carnage caused by the intense Serb nationalist bombardment that day, her death went unnoted except by her family and colleagues. Bosnia’s Ministry of Health reported on August 26 that 14 people had been killed and 126 had been wounded in Sarajevo during the preceding 24 hours (Kalender, 1996; Zećo, 1996).

Three months earlier the Serbian gunners’ target had been Sarajevo’s Oriental Institute, established in 1950 and home to Bosnia’s largest collection of Islamic manuscript texts and Ottoman documents. Targeted with incendiary shells on May 17, 1992, the Sarajevo Oriental Institute and all of its contents were consumed by the flames. Losses included 5,263 bound manuscript codices in Arabic, Persian, Ottoman Turkish, and Bosnian Slavic written in Arabic script (aljamiado); the Ottoman provincial archive, with more than 200,000 documents, primary source material for five hundred years of the country’s history; a collection of over one hundred Ottoman cadastral registers recording the land-ownership and population structure in Bosnia from the sixteenth through the late nineteenth century; and some three hundred reels of microfilm taken of Bosnian manuscripts in private hands or in foreign institutions. The Institute’s reference collection of ten thousand printed books and three hundred sets of periodicals, the most comprehensive special library on its
Figure 3. Sarajevo, Bosnia-Herzegovina. Interior of the Oriental Institute in Sarajevo, carpeted with the burned remains of its research library, of 5,300 ancient manuscripts and some 200,000 archival documents, after the Institute was shelled by Serb nationalist forces during the night of May 17, 1992. (Photo courtesy of the Oriental Institute in Sarajevo.)
subject in the country, was also destroyed, as were its catalogs and all work in progress (Gazić, 1993).

In each case the library alone was targeted; adjacent buildings stand intact to this day. Serb nationalist leader Radovan Karadžić denied that his forces were responsible for the attacks, claiming the National Library had been set ablaze by the Muslims themselves “because they didn’t like its . . . architecture” (Firestone, 1992).

The libraries of ten of the sixteen faculties of the University of Sarajevo were also wholly or partly destroyed by Serbian shelling, suffering combined losses of four hundred thousand books and five hundred periodical titles. Of the remaining faculty libraries and specialized research institutes affiliated with the university, all suffered some degree of damage to their buildings, equipment, and collections; all the libraries lost members of their staffs. Eight branches of Sarajevo’s municipal public library were also shelled and burned (Myers, 1993; Žuljević, 1996).

The catalog of losses does not stop there. On June 8, 1992, the monastery and library of the Franciscan Theological Seminary in the Sarajevo suburb of Nedžarići were taken over by Serb troops and paramilitaries. The monks were expelled from the premises and the seminary’s collection of fifty thousand books, including rare books and manuscripts dating from the seventeenth century, as well as hundreds of works of sacred art were looted. During the war a number of rare books and artworks bearing the ownership marks of the Nedžarići seminary were offered for sale to Father Leopold Rochmes, the head of the Franciscan order in Belgrade, by a Serbian art dealer, who demanded a prohibitive sum for them. After the end of the war some books were returned by local Serb residents, but more than half of the collection, including most valuable items, remains unaccounted for (Karamatić, 1996; Lovrenović, 1994; also, M. Karamatić, personal communication, February-March 2005).

Elsewhere in Bosnia

In the southern city of Mostar, more than sixty thousand volumes were burned in May 1992, when the Episcopal library in the Roman Catholic bishop’s palace was set ablaze by the Serb-led Yugoslav People’s Army (Kaiser, 1993; Živković, 1997, pp. 186–187). In June 1992, Croat extremists in turn blew up the Serb Orthodox cathedral in Mostar; a month later, they also destroyed the sixteenth-century Serb Orthodox monastery at Žitomislić south of Mostar (Riedlmayer, 1997). Similar acts of destruction, large and small, took place in hundreds of other communities in Bosnia-Herzegovina selected for “ethnic cleansing” by Serb and Croat nationalist forces between 1991 and 1996 (International Court of Justice, 2006).

The fates in the war of two small towns and their libraries, Janja in the northeastern corner of Bosnia and Stolac in the country’s southern region of Herzegovina, are representative of a widespread pattern of destruction.
Figure 4. Mostar, Bosnia-Herzegovina. Shared cultural space, ca. 1980: Muslim minarets and the steeples of Orthodox and Catholic churches reach up from the same skyline. (Photo courtesy of the Documentation Center, Aga Khan Program, Fine Arts Library, Harvard University.)
Before the 1992–95 war, Janja was a town of ten thousand people, 95 percent of them Bosniaks (Muslim Slavs), located in the fertile Semberija plain near the Drina River, about six miles south of the city of Bijeljina. In 1993–94 Janja was in the news as the scene of a particularly brutal “ethnic cleansing” campaign conducted by Serb nationalist militiamen led by a former soccer player named Vojkan Djurković, members of a paramilitary group controlled by the Serbian warlord Željko Ražnatović, a baby-faced thug who went by the nom de guerre Arkan.

According to information provided by the local Islamic community, the Atik džamija (Old Mosque) in the center of Janja was blown up between 3 and 4 a.m. on April 13, 1993, while the town was under curfew and under the control of Serb nationalist forces. The ruins of the mosque were leveled by bulldozer the following day, by order of the Serb authorities. Janja’s second, newer mosque was razed in the same manner at the beginning of May 1993.

Among the town’s other cultural treasures was the private library of the late Alija-efendija Sadiković (1872–1936). The scion of a prominent local Bosnian Muslim family, Mr. Sadiković was a scholar and a notable author whose work represented the last flowering of a four hundred-year-old tradition of Bosnian literature written in Bosnian Slavic in Arabic script (aljamiado). In a survey of Islamic manuscript collections in Bosnia, published on the eve of the war, the Sadiković collection is described as having about one hundred manuscript codices as well as hundreds of old printed books in Ottoman, Bosnian, Arabic, and Persian. Mr. Sadiković had bequeathed his library and personal papers to Janja’s Old Mosque, which also housed other valuable collections of rare books and manuscripts deeded to the mosque’s library by two famous local Muslim scholars, Halil-efendija Jelić and Mustafa-efendija Hadžić. Together these three Islamic endowment (waqf) libraries consisted of approximately 3,200 old printed books and manuscripts, including handwritten copies of the Qur’an, scriptural commentaries and other works on theology, history, philosophy, and Islamic law. All were destroyed in the spring of 1993, when Janja’s historic Old Mosque was razed. The adjacent mosque graveyard, with the tombs of dozens of Bosnian Muslim scholars and writers from Janja, was also leveled by bulldozer (S. Baćevec, personal communication, July 14, 2002; Ždralović, 1992).

In the months that followed, the “ethnic cleansers” also disposed of the town’s Bosnian Muslim population by sending Muslim men and boys considered to be of military age to concentration camps and making women, children and old people pay extortion money for the privilege of being expelled across the confrontation lines. All but a handful of the 30,000 Bosniaks living in the Janja-Bijeljina area were “cleansed” by Djurković and his men, reportedly acting on direct orders from Serb nationalist
leader Radovan Karadžić’s headquarters in the ski resort of Pale (Block, 1994; Eagar, 1994; Thurow, 1994).

By the time the war ended in 1995 most of Janja’s surviving inhabitants were refugees, living in temporary housing in the Tuzla area. Only recently have some begun to return to their home town. Vojkan Djurković is alive and well and is a big man in the nearby city of Bijeljina, which remains under control of Serb nationalist hardliners. Since the end of the war, investigators from the International War Crimes Tribunal for the Former Yugoslavia have discovered three mass grave sites near Janja, believed to hold the remains of hundreds of massacred Muslim civilians (Berman, 1996; Gutman, 1996; Pomfret, 1996).

The losses in Stolac, a historic small town in southern Bosnia-Herzegovina, also serve to illustrate the link between the destruction of a community through the killing or expulsion of its members and the destruction of its communal memory by the ethnic cleansers. On the eve of the 1992–1995 war, Stolac was inhabited by some 19,000 people, about half of them Bosnian Muslims, one-third Bosnian Croats and one-fifth Bosnian Serbs. Nominated by the Bosnian government for designation as a UNESCO world heritage site on the eve of the war, Stolac was a small jewel of a town known for its well-preserved traditional Bosnian residential architecture, its seventeenth-century market, its four old mosques, a Baroque Serb Orthodox church built in the last years of Ottoman rule, and a modern Catholic church. The town and its houses and monuments were picturesquely arrayed along the banks of the Bregava River, beneath a steep mountain topped by imposing fortifications dating back to the heyday of Ottoman rule.

In the summer of 1993, Stolac was ethnically cleansed by the HVO, the Bosnian Croat nationalist militia. A report by the office of the UN High Commissioner for Refugees (UNHCR) describes what happened:

In early July [1993], hundreds of draft-age men in Stolac, a predominantly Muslim town, were reportedly rounded up [by the Bosnian Croat authorities] and detained, probably in [the concentration camps at] Dretelj and Gabela. The total number of detained civilians from Stolac is believed to be about 1,350. . . . On 1 August, four mosques in Stolac were blown up. That night, witnesses said, military trucks carrying soldiers firing their weapons in the air went through the town terrorizing and rounding up all Muslim women, children and elderly. The cries and screams of women and children could be heard throughout the town as the soldiers looted and destroyed Muslim homes. The soldiers, who wore handkerchiefs, stockings or paint to hide their faces, took the civilians to Blagaj, an area of heavy fighting northwest of Stolac. (UNHCR, 1993)

A memorial book published by the presidency-in-exile of Stolac municipality lists the town’s murdered and missing residents. It also catalogs
the cultural losses, the wholesale destruction of mosques and Muslim houses, and of precious books, manuscripts, historic documents, and Islamic community records burned by Croat nationalist militiamen:

- The Library of the Muslim Community Board of Stolac, including forty manuscripts from the seventeenth to nineteenth centuries, valuable printed books and community records going back to the nineteenth century (burned in mid-July 1993 by HVO militiamen);
- The Library of the Emperor’s Mosque in Stolac—tens of manuscripts in Bosnian, Arabic, Turkish, and Persian, from the seventeenth to nineteenth centuries, along with eight framed *lawḥas* (illuminated single-page compositions of Islamic calligraphy) from the eighteenth and nineteenth centuries. Burned by the HVO in early August 1993, together with the Emperor’ Mosque (Careva džamija, Mosque of Sultan Selim I, built in 1519);
- The Library of the Podgradska Mosque (Mosque of Ali Pasha Rizvanbegović) in Stolac—tens of manuscripts and historical documents of the eighteenth to nineteenth centuries, and five *lawḥas* (the oeuvre of one local nineteenth-century calligrapher). The mosque library was burned in the fire set by the HVO to destroy the Podgradska Mosque (built in 1732–33) at 11 p.m. on July 28, 1993; the burned-out building was mined on August 8. The rubble remaining after the explosion was trucked away and the site was leveled;
- Several important private collections of documents, manuscript volumes, and rare books belonging to Bosniak (Muslim Slav) families in Stolac were burned by HVO militiamen when the town’s Muslims were rounded up and expelled and their houses destroyed in July-August 1993. We have only limited information available on the contents of these collections. There is a published description of fifty bound manuscripts (thirty-nine Arabic, two Persian, nine Ottoman Turkish) of the Habiba Mehmedbašić collection; the manuscripts were burned when the Mehmedbašić family home was looted and set ablaze by Croat extremists. The historic mansions, libraries, and family papers of other old Bosniak families in Stolac—Rizvanbegović, Behmen, and Mahmutčehajić—were also burned and destroyed (Presidency-in-exile of the Municipality of Stolac, 1996, pp. 45–54).

Before the war these family compounds and religious institutions had been local landmarks, symbols of the town and centers of the local Bosnian Muslim community’s communal life. Even those Bosniak residents who were not themselves religious had seen their parents or grandparents buried from the mosques of Stolac; the continued presence of the mosques and of the slim spires of their minarets were visible signs of their community and of its history in that town, even if they themselves did not attend prayers there. Similarly, the community and family libraries and
documents embodied the personal and collective history and cultural life of Bosniaks in that town. The systematic destruction of their houses of worship and of the written record of their culture was meant to send a message to the local Muslim community: you don’t belong here. This is not your place any more (International Court of Justice, 2007, pp. 121–124, para. 335–344).

**Shared Cultural Space**

For many, it was not the burning of libraries and the razing of mosques but the destruction of the old Ottoman bridge in Mostar that brought home the reality of the cultural and human catastrophe that had overtaken Bosnia-Herzegovina and the region. Built in 1566, the soaring arch of the old bridge at Mostar stood intact for 427 years, spanning the blue-green waters of the Neretva River through peace and war, floods and earthquakes, and the passage of centuries. On November 9, 1993, after half an hour of concentrated bombardment by a Croatian Army tank firing its cannon at point-blank range, Mostar’s old bridge finally collapsed into the river. The fall of the bridge was greeted by a long fusillade as Croat nationalist gunmen celebrated their side’s victory (Dodds, 1998). One Croat militiaman, interviewed in Mostar a couple of months prior to this, in September 1993, explained to a British reporter why it was necessary to destroy the old bridge: “It is not enough to clean Mostar of the Muslims,” he said, “the relics must also be removed” (Block, 1993).
However, the militiaman had it wrong. The old bridge was not the exclusive symbol of a single group, nor was it a symbolic link between East and West, as some observers have tried to interpret it. There were mosques and churches alike on both sides of the Neretva River in Mostar, their steeples and minarets reaching up from the same skyline. The bridge was the symbol of the city of Mostar (whose name means bridge-keeper). For countless generations the bridge had been the place where young men of Mostar had dared each other to leap into the rushing waters below, where young couples courted by moonlight, where friendships and deals were made and broken, and where gossip and news was exchanged. Just like the National Library and other Bosnian institutions targeted in the war, and much like the mosques, churches and synagogues that were built facing each other across the main squares of so many Bosnian towns, what the bridge over the Neretva symbolized was the everyday fact of living together, of shared cultural space. To exclusive nationalists, wedded to an elusive ideal of ethnic purity and apartheid, this shared cultural space is anathema. That is why they seek to destroy it.

"Why do I feel more pain looking at the image of the destroyed bridge [in Mostar] than the image of the [massacred] woman?" asked journalist Slavenka Drakulić (1993):

Perhaps it is because I see my own mortality in the collapse of the bridge... We expect people to die. We count on our own lives to end. The destruction of a monument to civilization is something else. The bridge, in all its beauty and grace, was built to outlive us; it was an attempt to grasp eternity... it transcended our individual destiny.

(p. 15)

Eleven years after its destruction the Mostar’s old bridge was rebuilt in facsimile, in conformity with the original plans and using original materials. The white stone arch of the “new old bridge,” though as yet too bright and new, once again soars over the river, drawing in tourists and hope for Mostar’s future.

Libraries in the Aftermath of War

Bosnia’s libraries have not been as fortunate. As of 2006, nearly a decade and a half after the catastrophic JNA bombardment and the ensuing inferno that destroyed most of its contents, the National and University Library (NUB) had yet to return to its original premises. The building, still fondly known by Sarajevans as the Vijećnica (Town Hall), remained an empty shell in the center of the old city, surrounded by hoardings, its walls still pockmarked by bullet holes, its windows boarded up. There were rumors that the Vijećnica was about to be restored with European funds, but no certainty that it would serve as a library again.

Meanwhile, settled in its long-term temporary quarters, in a restored
wing of a former Austro-Hungarian-era military barracks on the western edge of the old town, the NUB as an institution is alive, but not altogether well. On the positive side, the renovation of its current premises, donations of books and other materials, and a dedicated staff have managed to keep the institution going and are providing users with a level of collections and services that could hardly have been imagined in the aftermath of the 1992 disaster.

The principal problem is structural. The Dayton Peace Accords of 1995, which finally brought an end to three and a half years of war, also stripped Bosnia-Herzegovina’s central government of most of its powers and left it with limited sources of revenue. Since Dayton, the national government has not had a ministerial portfolio for cultural affairs. Nationalist politicians, who have dominated post-war governments in Bosnia, see no political gain in promoting the concept of a common heritage. Public resources that should be supporting the NUB and other national institutions of cultural memory are being diverted to private, ethnically-oriented cultural enterprises (Donia, 2004).

The devolution of power and financial clout to regional and local levels of government has left national institutions such as the NUB effectively orphaned, bereft of political backing and in a state of recurrent fiscal crisis. As a result, the NUB has had to rely on emergency subventions offered by various local authorities in Sarajevo on an ad-hoc basis, has often found itself unable to meet its payroll obligations and at times unable to pay its utility bills. In late 1994 the NUB even closed its doors to the public for a time, pleading lack of funds. Another emergency transfusion of cash allowed it to reopen but its problems remain unresolved. Promises of international assistance for post-war reconstruction of the National and University Library’s collections, infrastructure and services have materialized only on a modest scale (Spurr, 2005). Nevertheless, Bosnian and American librarians have been cooperating in a number of innovative projects aimed at reconstructing virtual collections of Bosnia-related material (Bosniaca), using new technology to help recover at least some of the written heritage that was lost in the flames in 1992 (Bakaršić, 2004; Kalaš, 2003; Riedlmayer, 2004).

Library Cleansing

Croatia’s long war of independence came to a dramatic end in the summer of 1995, when Serbia’s ruler Slobodan Milošević withdrew support from his Serb nationalist protégés in the neighboring country. Rebel Serbs in Croatia, whose forces had occupied nearly a quarter of the country and had driven out most non-Serb residents from territory under their control, now found the tables turned. In two swift military operations, code-named “Bljesak” (Flash) and “Oluja” (Storm), the Croatian army took most of the rebel-held territory, from which most of the ethnic Serb
population now fled in panic, in fear of attacks by soldiers or by returning Croat civilians seeking loot or revenge amidst the chaos.

With triumphant nationalist sentiment running high some zealous Croatian patriots, with encouragement from above, took it upon themselves to seize the moment and apply the principle of ethnic purity to library collections. Korčula, on the Dalmatian island of the same name, a sleepy resort town that had escaped the ravages of the war, was one of the places caught up in this unreason. In 1997, Ms. Izabel Skokandić, acting administrator of Korčula’s small municipal library decided to do some deaccessioning. She was observed removing some seven hundred books from the library and dispatching them to the dump. Among the discarded books were titles published in Belgrade or elsewhere outside of Croatia, also books by Serbian authors and books in the Cyrillic alphabet, and works of foreign authors generally. Local people were upset and notified the media. The satirical weekly the Feral Tribune eventually ran an exposé on the incident under the headline “Girl with matches,” Ms. Skokandić sued the paper, claiming she had been defamed as a book-burner. On February 13, 2002, a municipal judge in Zagreb found in her favor, because while she had dumped books, she had not actually set fire to them. She was awarded damages of $3,500, a tidy sum in Croatia, plus court costs. And she remained in charge of the Korčula library.

A series of investigative articles in the Feral Tribune and other papers has since turned up more than half a dozen additional incidents of “library cleansing” elsewhere in Croatia, carried out in the mid-1990s at the incentive of a Croat nationalist minister of culture (Lasić, 2002; Lešaja, 2003). Similar charges have recently surfaced in Bosnia, where the Bosniak director of the municipal library in Bugojno was accused in 2005 of having dumped over 1,000 books by Croatian authors, a charge he has denied, pointing out that some 80 percent of the library’s collection consists of works by Serb and Croatian authors. True, some 3,200 books are missing from the library’s inventory, but the director insists those books went missing during the war, or were never returned by readers (Antić, 2005).

In comparison to the massive library purges on the South African (Dick, 2004) or Soviet model (Beacon for Freedom of Expression, n.d.), these may seem like minor, localized incidents. But the fact that they occur at all gives cause for concern and for renewed vigilance.

Kosovo Burning

While librarians in Bosnia and Croatia, with help from colleagues abroad, struggled with the daunting task of rebuilding, elsewhere in the Balkans conflict was brewing again. In 1998 and 1999 ethnic Albanians, who form the majority in the southern province of Kosovo, rose in armed revolt against the Belgrade government of Serbian strongman Slobodan Milošević. Belgrade’s forces reacted with brutal repression and engaged
Figure 6. Prishtina (Kosovo). The Central Historical Archive of the Islamic community of Kosovo (KBI) in flames, after it was set ablaze by Serbian police June 13, 1999, hours before the arrival of the first NATO peacekeeping troops. (Photo copyrighted by Archive Photos—Reuters/Oleg Popov.)
in massive ethnic cleansing of Kosovo Albanians in a bid to ensure continued Serbian dominance in the province. After peace talks in early 1999 failed to bring concessions, NATO intervened at the end of March 1999 with air strikes on Kosovo and Serbia proper. The Kosovo war of 1999 lasted less than three months but resulted in massive displacements of population as Serbian police, troops, and paramilitaries drove some eight hundred thousand Kosovo Albanians—a third of the population—out of their homes and out of Kosovo. Once again, cultural landmarks of the non-Serb population suffered massive destruction. Within a matter of weeks some 220 mosques, more than a third of the 607 mosques registered in Kosovo before the war, had been damaged or destroyed (Herscher & Riedlmayer, 2001).

While Kosovo’s National and University Library in Pristina escaped major damage, public libraries in other Kosovo municipalities, especially in the rural areas, suffered terrible devastation. By the end of the eleven-week war, 65 of Kosovo’s 183 public libraries, a third of the total, had been completely destroyed. The Kosovo public library network’s combined losses were assessed at 900,588 volumes. More than a third of school libraries in Kosovo were also destroyed in the war (Fredericksen & Bakken, 2000). A number of religious libraries and archives of Kosovo’s Islamic community were also burned. Among them was the Islamic endowment (waqf) library of Hadum Suleiman Aga in the western Kosovo town of Gjakova/Djakovica, founded in 1595 and burned by Serb troops at the end of March 1999 with the complete loss of its collection of 200 ancient manuscripts and 1,300 old printed books. Another irretrievable loss was that of the central historical archive of the Islamic Community of Kosovo, in Pristina, with community records going back more than five hundred years, which was burned by Serbian police on June 13, 1999, after the armistice and just hours before the arrival of the first NATO peacekeeping troops in the city (Riedlmayer, 2000).

Reports by journalists and refugees during the Kosovo war, indicating that the destruction of cultural heritage that had accompanied ethnic cleansing in Croatia and Bosnia during the wars of the early 1990s was now happening again in Kosovo, suggested the need for a systematic post-war field survey to examine allegations and to document the damage. As the United Nations was taking over civil administration of the territory, it seemed logical that UNESCO would conduct such a survey. But inquiries with UNESCO headquarters in Paris revealed that the international body had no such plans. In the end, it seemed like the only way to make such a survey happen was to do it on one’s own. After raising the requisite funds and doing a considerable amount of library research, I went to Kosovo in October 1999, three months after the end of the war, in the company of architect Andrew Herscher, to document damage to cultural heritage
buildings and institutions (Herscher & Riedlmayer, 2001). After completing our field survey, we consolidated our findings and documentation into a database and wrote up a final report, copies of which were presented to the Department of Culture of the UN Mission in Kosovo and to the Office of the Prosecutor of the UN war crimes tribunal in The Hague.
INTERNATIONAL JUSTICE

And that is how, three years after the Kosovo war, I found myself a witness in the courtroom at The Hague, confronting a former head of state, Yugoslav President Slobodan Milošević, with evidence about the destruction of cultural heritage during the wars in Kosovo and in Bosnia-Herzegovina (Armatta, 2003; Klarin, 2002). Part of the evidence entered into the record as a result of my testimony was the documentation that I had gathered on the destruction of libraries in the Balkans. Unfortunately, the Milošević case never came to judgment. In March 2006 Milošević died of heart failure, shortly before the scheduled end of his trial. His case is closed.

Nevertheless, the evidence presented in the Milošević trial is being reused at the ICTY in cases brought against other defendants. At the end of October 2006 I testified in the trial of Milan Milutinović, who was president of Serbia, one of the two remaining federated republics of Milošević’s Yugoslavia, at the time of the Kosovo war. Ironically, some years before assuming the presidency, Mr. Milutinović had served (1983–1987) as head of Serbia’s National Library. Now he may have to take responsibility for the forces under his formal command that, among other misdeeds, are alleged to have destroyed cultural and religious monuments and burned libraries in Kosovo during the 1999 war.

It is a hopeful sign that the UN War Crimes Tribunal for the former Yugoslavia (ICTY) is treating attacks on cultural property, including the destruction of libraries, as a serious war crime and by doing so it is breaking new legal ground. The war crimes trials at Nuremberg had included attacks on and appropriation of cultural property in the list of charges brought against the defendants, a legal first. However, at Nuremberg the allegations involving crimes against culture had been classed with property crimes in general, as further items listed along with the charges concerning the dismantling of factories and damage to the soybean crop. There was no sense that attacks on cultural property represented anything different. It is only in the latest round of trials at The Hague that such a recognition has started to emerge (Maass, 1999; Meron, 2005).

From the first, ICTY was mandated by its statute to prosecute as war crimes the “seizure of, destruction or willful damage done to institutions dedicated to religion, charity and education, the arts and sciences, historic monuments and works of art and science” (International Criminal Tribunal for the former Yugoslavia, 1993, Article 3(d)). This article of the statute qualifies such attacks on cultural property as violations of the laws or customs of war.

The war crimes cases brought against the two senior Yugoslav army officers who commanded the JNA forces in the 1991 siege of Dubrovnik were the first such cases tried before an international court in which the major focus was on cultural property charges. Admiral Miodrag Jokić
plead guilty to the charges against him and agreed to testify against his colleague, General Pavle Strugar, who stood trial and was convicted. The admiral and the general have been sentenced to seven and eight years in prison, respectively; their convictions set a legal precedent (*Prosecutor v. Pavle Strugar*, 2005).

Furthermore, evidence about the destruction of cultural and religious sites can also be an important element of proof in cases where the accused is charged with persecution on political, racial, and religious grounds as a crime against humanity. In such cases, testimony about the destruction of cultural and religious sites can provide powerful evidence of intention and motive. The judgment in a recently concluded case states this connection quite clearly (*Prosecutor v. Momčilo Krajišnik*, 2006).

As for “cultural genocide,” a concept much used in public forums and academic debates, there is no such category in international law. At the insistence of some national delegations, in particular the United States, the references to culture as a protected category were deleted from the final draft of the 1948 Genocide Convention that was eventually adopted. Nevertheless, there is clearly a connection between the targeting of a given group for persecution or destruction (the group having been singled out

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*Figure 8. Belgrade, Serbia. Library and archive of the Islamic community of Belgrade, sacked and burned by a mob, March 18, 2004. (Photo courtesy of the Islamic community of Belgrade.)*
on the basis of its cultural and religious characteristics) and the systematic
destruction of its heritage (based on the association of that heritage with
the targeted group). Judges at the Tribunal have begun to recognize this
link and have taken such evidence into consideration in their rulings on
the gravest of charges (Morsink, 1999; Riedlmayer, 2005).

Whether the stately course of justice unfolding at The Hague and at
the local war crimes courts that are now beginning to take over the case
load will really deter war crimes, including attacks on cultural property,
is another matter. Much of the international law governing the conduct
of war seems to assume basic good intentions on the part of combatants.
If combatants go wrong, the presumption seems to be that they do it out
of ignorance or carelessness. This is why there is such confidence in the
efficacy of the Blue Shield, also known as the Hague emblem, designed
to identify buildings and institutions protected by the Hague Convention.
But in the Balkan wars of the 1990s, where so much of the targeting of cul-
tural sites was deliberate, the blue rhombus of the Hague emblem did not
seem to do much good. If anything, it served to attract attention to build-
ings it was hung on, and would often result in more damage, not less.

It may be well not to underestimate the capacity of people to engage
in deliberate acts of destruction. Consider the ethnic riots that broke out
in Kosovo on March 18, 2004. The drowning of three young Kosovar Al-
banian boys in a stream in northern Kosovo led to rumors that the children had been chased to their deaths by Kosovo Serbs who allegedly set a dog on them. Riots ensued, stoked by inflammatory reporting. Before the riots were over eleven Albanians and eight Serbs were killed in Kosovo, some thirty Serb Orthodox churches were damaged or destroyed, and scores of Serb homes were torched in the mob violence.

The riots in Kosovo prompted public outrage in Serbia, where mass demonstrations were called the same day by political leaders. The protests turned violent by nightfall and ended with the burning of mosques in the cities of Belgrade and Niš and violent incidents in several other towns. In the southern city of Niš, a mob of young Serb radicals set fire to the city’s only mosque; members of the crowd lay down in the street to prevent the fire brigade from reaching the scene. The two-hundred-year-old mosque burned all night and was a smoking ruin by morning, its walls covered with Serbian nationalist graffiti. In Belgrade, a mob marched on the seventeenth-century Bajrakli Mosque, the only remaining Islamic house of worship in the capital. They set fires that charred the outside of the mosque and they smashed up the interior. Then they broke into the Islamic school and cultural center adjacent to the mosque and set fire to the library. The Islamic library with its fifty thousand books and ancient manuscripts, and the historical archive of the Islamic community of Belgrade, were completely burned. It later came out that the chief of police in Belgrade had issued orders to his officers not to intervene.

“Our library is destroyed, all our records are destroyed, our seals are missing, our safe has been emptied, our computers are destroyed or stolen. As the Islamic community of Belgrade we no longer exist,” Imam Mustafa Jusufspahić, the Belgrade Mufti’s thirty-four-year-old son, told a reporter (Mracevich, 2004). Photographs of the destroyed library and archive posted on the Web showed charred Qur’ans and bookshelves covered with ashes. A librarian friend at IFLA wrote to his contact, a professor of library science in Belgrade, asking for an update on the fate of the Islamic library. On April 9 his Serbian colleague wrote back indignantly: “Believe me, nothing happened with any library in Belgrade.”

Notes

An earlier version of this paper was presented at the ALA Library History Roundtable’s Library History Seminar XI: Libraries in Times of War, Revolution and Social Change, held at the University of Illinois at Urbana-Champaign, October 27–30, 2005.

1. E-mail interview conducted by the author with Father Marko Karamatić, professor at the Franciscan Theological Seminary and custos of its library until the takeover of the monastery by Serb troops in June 1992.
2. Interview conducted by the author with Salko Baćevac, president of the Medžlis (council) of the Islamic Community of Janja.

References


András J. Riedlmayer directs the Documentation Center of the Aga Khan Program for Islamic Architecture at Harvard University’s Fine Arts Library. A specialist in the history and culture of the Balkans, he has spent much of the past decade and a half documenting the destruction of archives, libraries, and other cultural heritage during the wars in Bosnia-Herzegovina (1992–1995) and Kosovo (1998–1999). He has testified about his findings as an expert witness before the International Criminal Tribunal for the former Yugoslavia (ICTY) in The Hague, in the war crimes trial of Slobodan Milošević, and before the International Court of Justice (ICJ). The author of more than forty articles published in scholarly and professional journals and edited volumes, in five languages, he currently serves as president of the Turkish Studies Association. In 1994, he helped found the Bosnian Manuscript Ingathering Project, an effort to trace and recover still extant microfilms and photocopies, “shadows of lost originals” representing some of the thousands of archival documents and manuscripts that were destroyed when archives and libraries in Bosnia were burned by nationalist extremists during the 1990s.
The Paradox of Preservation

MICHÈLE V. CLOONAN

Abstract
This article explores historical, political, and professional paradoxes that underlie efforts to preserve cultural heritage. These paradoxes are illustrated through five case studies: the discovery of the Nag Hammadi bindings, approaches to the preservation of Auschwitz, the Danish cartoons depicting Muhammad, the destruction of the Bamiyan Buddhas, and the creation of a protective structure for the Hamar Cathedral ruins. Although it is not possible to preserve everything, it is suggested that the shift from the traditional custodial model of caring for collections to one with greater community input may lead to new preservation strategies—and to new ways of defining preservation. Through our attempts to preserve under highly complex circumstances and equally complex issues, our standard notions of what constitutes preservation come into question, and some aspects of preservation remain paradoxical.

Background
When professionals write about the role of cultural institutions, notions such as these are common: “Museums create, manage and preserve varied information about their collections” (White, 2004, p. 9), and, “Art museums are—and traditionally have been—about conserving, curating and exhibiting works in permanent collections and about presenting special exhibitions” (Hamma, 2004, p. 11). There are countless other statements in which preservation is mentioned as one of the two or three most important responsibilities of museums, archives, libraries, and historical societies.
But just what is preservation? Definitions have varied. Before the mid-twentieth century, preservation referred to *collecting*. The very act of acquiring materials and placing them in an institution constituted preservation. When individual items received physical treatment, that was considered *restoration*. Restoration of works of art was originally practiced by artists and craftsmen. Later, the term *conservation* denoted a more scientific approach to treatment. Several American graduate programs in conservation were established after World War II, and conservation became a profession. Conservators focused not only on the treatment of individual objects, but on the external hazards facing collections, such as the environment and disaster mitigation. But by the 1980s, preservation—an umbrella term for the aggregate care of collections—had become a distinct profession. Thus, originally conservation dealt with individual items and with whole collections. (Preservation, conservation, and restoration are used somewhat differently in the moving image archives and historic preservation fields as a perusal of such journals as *History News, Future Anterior,* and *The Moving Image* demonstrates. Those differences are beyond the scope of this article.)

There are conceptual differences among archives, libraries, and museums that affect approaches to and definitions of preservation (Cloonan & Sanett, 2002, p. 74). For example, archivists tend to think more in terms of preserving records “for some period of time” (Pearce-Moses, 2005) because as records managers they must comply with the legal obligation to protect records. Also, institutions may have retention schedules that allow for or mandate deaccession after a certain prescribed time. So “preservation” is not always viewed as a permanent activity for some kinds of documents in some institutions. *The preservation of archives and records is defined foremost by the nature and function of the records themselves, and not by the physical location where the records reside.*

Items owned by museums and libraries are preserved simply because they are in the custody of those institutions. Historically, the assumption has been that once these institutions acquired materials, they would be preserved permanently. (Although some libraries engage in periodic collections weeding.) In museums the concept of ownership is central. Provenance research is undertaken when an item is acquired, and ownership information appears on every caption that is displayed with an artwork; for example, gift of, promised gift of, bequest of, purchased from, etc. Issues of ownership are brought to light when there are controversies. One example is when museums are accused of possessing stolen art. However, there are other examples, such as when museums assume temporary custody of works of art, such as, Pablo Picasso’s *Guernica*, which was held by the Museum of Modern Art (MoMA) from 1938 until 1981 when it was returned to Spain after the death of Franco.

The point I am trying to make is this: museums and libraries are custo-
dians of objects, and in that role preservation is a primary responsibility. These institutions are also storehouses in which only a small percentage of items are displayed (in the case of museums) or checked out (in the case of libraries).

Two phenomena have disrupted the “custodial storehouse” model. The first is access. In libraries, books have become increasingly more accessible since the American librarian, John Cotton Dana (1856–1929), first advocated opening the stacks to users in the late nineteenth century. In Dana’s view libraries were not simply storehouses of treasures but community centers. By opening the stacks, he aimed to make libraries more democratic by allowing users to select their own books. From open stacks to online catalog records, to Web-based resources, today information is generally more freely available, though the access is often not to the information itself, but to where the information can be gotten. For analog materials, the “custodial storehouse” model is disrupted, as I have said, because of increased access. But such “disruption” is not to be construed as bad. In fact, it is exactly what libraries exist for. Items must be stored specifically to facilitate access. The storing function is permanent in that between periods of use, items are returned to the storehouse to make future use possible. The storing is temporary only in the sense that items may be temporarily removed from storage. It is the permanent aspect of the storehouse model that constitutes preservation.

The second phenomenon is related to the first: the rise of digital information and the Web. The explosion of digital resources has given people access to seemingly infinite online resources. A recent article about art museums carried the headline: “3 Out of 4 Visitors to the Met Never Make It to the Front Door” (Vogel, 2006). Some 4.5 million visitors travel to the New York Metropolitan Museum of Art, while another fifteen million access the collections from around the globe. In some cases, new visitors are drawn to museums and libraries. However, what people do in museums and libraries has shifted somewhat. They may go for a jazz concert, or to meet someone for lunch, grab a latté, or shop in the stores yet never set foot in the galleries.

With respect to libraries and the Web, there is an exponential increase in the “use” of collections. I put “use” in quotation marks because the paper-, film-, or other material-based items locatable on the Web are often not full texts but bibliographic records that lead to the texts, which themselves are in physical form. It is the physical forms we are preserving for users.

An increasing number of texts and images, however, are born digital and exist only in that format. These may be universally accessible online—in full text—but their preservation is of serious concern in the library/archival community because of the evanescence and eventual obsolescence of the hardware and software we must use to access the texts.
Preservation has different meanings in different contexts; but one concept is common to all these definitions: the notion that it is possible to maintain collections, if not indefinitely, at least for as long as possible. Adding to that burden, today a Louvre or a Harvard must preserve not only its physical collections, but its online resources as well. As I have said, both kinds of preservation present challenges.

Questions that are forcing us to rethink the meaning of “preservation” include: who owns the information? If it is not the library or the museum, who will be responsible for preservation? Who will pay for the preservation costs? What are the differences between physical and digital collections? How will cultural heritage institutions preserve the digital information they are now creating such as Web sites, blogs, and wikis—not to mention new-model scholarship (Smith, 2003)? What will post-custodial models look like? How will libraries continue to foster new-model scholarship? What about the information that libraries are now creating, such as Web sites? And what about the more disruptive and constantly evolving Web 2.0 with its folksonomies and wikis?

THE PARADOX

A paradox is “a seemingly sound piece of reasoning based on seemingly true assumptions that leads to a contradiction” (Audi, 1999, p. 643). In the case of defining preservation, it may be that our long-held assumptions are false; can we still assume that it is possible to maintain collections indefinitely or even for a long time?

A paradox is said to be put to rest when the mistaken principles or assumptions are clearly identified and unraveled. Is our assumption that permanence is achievable a paradox?

I will present five “case studies” that challenge our assumptions about what needs to be preserved and how to achieve this. I will conclude with some observations about digital preservation and consider whether the challenges are new, or whether they have been with us all along. Finally, I will attempt to put the paradox to rest.

THE NAG HAMMADI BINDINGS: OUT OF THE GROUND AND INTO THE FRAY

In December 1945, an Arab peasant (Muhammad ‘Ali) and his brothers ventured out of Nag Hammadi, about three hundred miles south of Cairo, to the Jabal al-Tārif, a mountain honeycombed with caves (La Bibliothèque copte de Nag Hammadi [BCNH] Web site: http://www.ftsr.ulaval.ca/bcnh/decouverte.asp?lng=ang). Allegedly they were digging for a soft soil that they used to fertilize their crops. They discovered a large earthenware jar, nearly a meter high. Inside were thirteen papyrus codices bound in leather. The brothers brought the books home where their mother used some of the loose papyrus leaves to kindle the fire in her
oven. The family initially hid the books, but not before someone had seen one and sent it to a friend in Cairo. The brothers gave some of the other codices to a priest. Soon one codex was sold on the black market through an antiquities dealer. The Egyptian government was able to seize ten and a half of the thirteen books and place them in the Coptic Museum in Cairo. One codex left Egypt, and the remaining one-and-a-half codices presumably burned in ‘Ali Muhammad’s mother’s oven.

The manuscripts, dating from the fourth century (though probably copied from even earlier texts) contain Gnostic texts, which challenge the version of the life of Christ described in the four Gospels. These texts recently became more widely known through The DaVinci Code. But the bindings are of equal interest to book historians, codicologists, and conservators because “Coptic bindings form the oldest surviving ‘family’ of leather bookbindings, and represent the ultimate source of all decorated bindings whether Near Eastern or European” (Miner, 1957, p. 15). The only surviving original bindings before about 700 AD are Egyptian and post-date the Nag Hammadi bindings.

Prior to the discovery of the Nag Hammadi codices, the Pierpont Morgan Library acquired, between 1911 and 1920, fifty-two Coptic bindings that had been excavated from the monastery of St. Michael of the Desert in the Fayum (near Cairo). These bindings date from the eighth to tenth centuries. The Nag Hammadi bindings, written and bound in the first half of the fourth century, are nearly four hundred years older. Yet, remarkably, many of the features of the later bindings were already in place in these earliest ones. The covers are goatskin or sheepskin. The upper covers have flaps and ties, similar to later Islamic bindings. Several of the bindings are decorated (Needham, 1979, pp. 5-6). Every feature of them has been studied, and they continue to be models for conservation students as well as those interested in the history of bookbinding structures.

The history of the Nag Hammadi codices has parallels to the history of other artifacts that have been partially destroyed after so-called “excavation.” Would these codices have been better preserved if left in the ground? Or put another way, does what we have learned about Gnostic texts and Near Eastern codicology justify the damage that was done to the books? Were the codices better served by preservation in the buried earthenware jars? Twenty-six years ago I went to the Coptic Museum to see the codices. The librarian was on his way out to lunch but I persuaded him to let me see them. He led me to his desk and pulled a couple of them out of his desk drawer. Today they have better housing, but given their poor storage then, not to mention their earlier rough handling, these books had already been compromised.

As a case study these bindings present several issues in the preservation world, as I have suggested. If the books had remained in the ground, they would not have been compromised, damaged, or destroyed. The
paradox is evident. For had they remained buried, we would not know of
them; thus the important information we have gotten from them would
not be ours.

As with the discovery of a frozen mammoth, its fine condition was
guaranteed while it was frozen. But for scientists to learn anything from
it, it had to be thawed. Thawing guaranteed its destruction. In this case,
as with the Nag Hammadi bindings, the loss of some material—or the
loss of some information from the deterioration caused by careless han-
dling—is more than compensated for by what we were able to learn. True,
the books’ destruction or deterioration was more preventable than was
the loss of the mammoth. But the great advances in scholarship we made
from these bindings almost completely justified the original poor han-
dling of them. The paradox is partially unraveled: some “destruction” or
“loss” can be more than balanced by our gain. Another way to look at this
is that before these volumes came to light, there was nothing to preserve.
As far as we were concerned, they didn’t exist. Now that we have them,
and now that they are in an institution, we are preserving them. Is it true
that all things eventually deteriorate? Maybe so, but our aim as preserva-
tionists is to slow down that deterioration as best we can to prolong the
longevity of objects.

Sometimes at issue is whether something should be preserved, and if it
should, for how long and in what form? These questions have surrounded
the Nazi Concentration Camps since the end of World War II. While some
people felt that the concentration camps “should be left to fall into ruins”
(Ryback, 1993, p. 77), the prevailing sentiment has been that it is impor-
tant to maintain evidence of the atrocities committed at the camps. As
early as 1947, the Polish parliament determined that Auschwitz would be
“forever preserved as a memorial to the martyrdom of the Polish nation
and other peoples’” (as cited in Baker, n.d.). Today, it is a UNESCO World
Heritage Site.

The UNESCO World Heritage Center (n.d.) description of the site
reads in part:

The fortified walls, barbed wire, platforms, barracks, gallows, gas cham-
bers and crematorium ovens show the conditions within which the Nazi
genocide took place in the former concentration and extermination
camp of Auschwitz-Birkenau, the largest in the Third Reich. . . . [and]
the symbol of humanity’s cruelty to its fellow human beings in the
20th century.

The problem is that the concentration camps were purpose-built and
not intended to last. As a member of the Warsaw Cultural Ministry has
noted:

The Germans built the camp with the intention of exterminating an
entire race and then destroying all the evidence of this deed. Everything
was poorly made—the barracks, the crematoriums, the paper used
for documents. It is difficult to preserve something that was made to vanish. (Ryback, p. 80)

It should be pointed out, however, that though the camps were designed to be temporary, millions of pieces of ephemera are being stored “to perpetuity” in libraries and archives. Just because these items were conceived as ephemeral does not mean that we should let them die. In fact, it is our mandate to preserve them as items casting light on an important event. In the 1980s the Jewish Center Foundation in New York City raised money for the restoration of the decaying camp. Proposals for the site ranged from modest intervention to large-scale reconstruction. The completed restoration will be closer to large-scale reconstruction. This is

Figure 1. Auschwitz. Bearing Witness to Massacre. (photo courtesy of Russell Yarwood)
because Auschwitz is not just a memorial; it is also an archive, museum, gathering place, and hallowed ground. More modest intervention would have placed limits on how the camp could now be used.

One of the most emotionally powerful preservation issues has been what to do with the collection of deteriorating human hair. Some devout Jews believe that the hair should be buried, while some former prisoners feel that the hair should be maintained for as long as possible “since it is among the most eloquent evidence of the Holocaust; few other things left behind by the victims are more shocking or unusually suggestive” (Mensfelt, 2004). Still others believe that the hair “bears witness” to the events of the war and provides incontrovertible evidence to those who deny that the Holocaust took place.

With a site as psychologically and cataclysmically powerful as Auschwitz or, more recently, with the World Trade Center memorial and museum, decision making becomes a community activity. Preservation strategies inevitably become a series of compromises because many different views need to be accommodated.

Part of the problem is that such decision making is rooted not merely in logic and analytical thinking but also in emotion. How many family members and friends died at these sites? How does such a loss strike individuals? Some people want to eradicate all memory of the horror, all traces of the terrible cruelty. Others, with the deeply rooted urgency to remember those they have lost, wish to commemorate the losses and to maintain the sites as a warning. It is a paradox to those charged with deciding what to do with those sites to try to please everyone. It can’t be done. And no compromise seems feasible. If anything is left, those wanting eradication are not served. If nothing is left—that is, if all traces of the site are eradicated, those wanting a place of memory will be thwarted. What should the preservationist do?

As I have pointed out, a concomitant issue emanates from the earlier quotation that it is difficult to preserve something that was made to vanish. This is the very issue raised in the world of libraries and archives with respect to ephemera, playbills, posters, leaflets, newspapers, and the like, which are typically produced on flimsy media. Librarians and archivists, recognizing the research value of these items, have cognizantly decided to preserve just about every kind of ephemera that there is, even to the extent, in some cases, of spending large amounts of money on their conservation.

If this analogy is apt, then the preservation of Auschwitz is justifiable, not at all paradoxical.

See No Evil

More recently, an international controversy has arisen over the publication in the Danish newspaper Jyllands-Posten of several caricatures of
Muhammad. The strong Muslim sentiment against the cartoons creates a potential dilemma for archivists and curators of Islamic collections; should the cartoons be acquired and preserved? Cataloged? Made available to researchers? Exhibited?

The magnitude of the reaction to the cartoons around the world was strong enough that one might suppose that any major collection of Islamic materials would want to have copies not only of the cartoons, but of the international reactions to them. To find out what my colleagues might do, I informally polled curators of six large Islamic collections in American institutions. My respondents agreed that such items would be important to collect. Further, each of the curators stressed the importance of not backing away from collecting controversial items. One wrote:

> Everything is grist for the historian, and, in this case, the culture critics, political scientists, constitutional scholars, and so on, so I would acquire and catalogue, as you would any artifacts in print, whether text or image, but not display or advertise. (J. Spurr, personal communication, April 13, 2006)

Another added:

> There are many activists within the academic and non-academic world who are trying to extract and ban various collections for many reasons. Libraries have an obligation to preserve ‘primary sources,’ including the cartoons that have spurred the riots and the killings. How else can [we] study the violent protests and diplomatic upheaval that ensued [after] the publication of the cartoons. (S. Khanaka, personal communication, April 13, 2006)

_The New Yorker_ ran a cartoon that weighs in on the controversy, captioned, “Please Enjoy this Culturally, Ethnically, Religiously, and Politically Correct Cartoon Responsibly”; it is blank (Shaw, 2006, p. 30).

A related issue for repositories concerns the violent reaction to these cartoons. Is it safe for any institution to preserve them? Are the institutions opening themselves up to attack by housing the cartoons? Also, if, as one of my respondents suggested, the institution collected them but did not display them, would they be open for use? Would anyone be aware of their existence? If the answer to either of these two last questions is “no,” then preserving them serves no immediate purpose, even though long-term preservation may be achieved. Here is where the paradox lies. Preservation of a useless item or collection is illogical. The collection would serve just as much use as if it were destroyed. What is the preservationist to do? If my respondents are right—collecting and preserving is in order—then the institution must be willing to live with the potential consequences and guard against the dangers they raise.

It is clear that preservation decisions may be multifaceted. In selecting items to preserve, the curator must be cognizant of the sensitivities that may ensue and the other issues they may face. Furthermore, as I suggest,
any decision will undergo the scrutiny of library users or museum-goers who may hold divergent opinions.

Collecting the Danish cartoons is a form of preservation, as I have suggested at the outset. Making decisions in the short term for the long term is another paradoxical aspect of preservation.

The fate of the Bamiyan Buddhas could be dubbed “The Saddest Preservation Story Ever Told.” Exactly six months before 9/11, on March 11, 2001, the Buddhas in Bamiyan, Afghanistan, were destroyed by the Taliban. This was not a sudden assault, but a calculated one. Mullah Mohammed Omar had issued an edict against un-Islamic representational figures before 2001, and the Taliban had already begun destroying ancient sculptures, a move that some have described as archaeological terrorism.

Dating from 507 and 551 AD, the Buddhas, giant stone statues, were once prominent when the Bamiyan Valley was part of the Silk Road. But Buddhists have long ceased to live in Afghanistan, and international advocacy of the sculptures had no sway with the Taliban.

After the site had been bombed, UNESCO sent a mission to Bamiyan to assess the condition of the site and to cover the remaining stone blocks to protect them during the winter of 2001-02 (Manhart, 2005). Funds were later raised to carry out further preservation of the site.

The loss of the statues is an example of a failure of international diplomacy. Preservation is often contingent upon the balance of international relations. If the Taliban, or any other group, refuses to recognize UNESCO treaties, then cultural heritage becomes vulnerable (Cloonan, 2007). Whether the destruction is of monumental sculptures (as in Bamiyan) or of archives (as in Bosnia), workable solutions are not always at hand. In the trial against Slobodan Milošević in The Hague, András Riedlmayer, a librarian at Harvard, testified that the systematic destruction of books, legal records, and other archives constituted cultural genocide and should be considered a war crime. Since Milošević’s death in March 2006, this doctrine has yet to be established by an international court.

As I stated earlier, we must approach preservation differently from the way we have in the past. Just as old models of international collaboration failed to save the Bamiyan Buddhas, old models of institutional preservation will not necessarily be effective across cultures or for digital preservation, which to carry out the international metaphor, is “without borders.”

But the point here is that—for the Taliban at least—the Buddhas should not have been preserved. As with the intentional destruction of any piece of cultural heritage—books, statues, graves, gas chambers, or any other property, even language and customs—the need or impulse or imperative to preserve is not universal (Cloonan, 2007). We each bring to this field our own Western sensibilities, our own strategies and practices. What do we do, how should we think, if our notions come into conflict with those of other cultures who view preservation differently? A pair of
conflicting attitudes from opposing cultures kindles the paradoxical situation with respect to the preservation of objects. Situations like this force us to rethink what our responsibilities are.

**Interlude: Digital Preservation**

There is no dearth of literature about digital preservation. Technical, legal, and practical issues have all been addressed in countless publications. One work, Abby Smith’s *New Model Scholarship: How Will It Survive?* (Smith, 2003) discusses the concept of stewardship, which is applicable to both the digital and the artifactual realms.

New-Model scholarship refers to new forms of digital works, which may
be experiential, open-ended, interactive, software-intensive, multimedia, and, often, unpublished. Sometimes the long-term preservation model is not appropriate because the works are still in flux. And other needs—access, low-cost distribution, interactivity, malleability—may be more important than preservation. Since preservation—as one of many responsibilities of librarians, archivists, and museum personnel—costs money, and since there is never enough money, preservation may not merit expenditures when the institution sees higher priorities.

Two preservation models, which work well in this environment, are the enterprise- and the community-based models. The University of California, Stanford, MIT, and Harvard, practice variations of the enterprise model by providing digital infrastructures that can support new-model scholarship such as institutional repositories. Community-based models use third-person preservation services. Smith identifies the Center for Research Libraries, JSTOR and the Internet Archive, as potential models for the community-based approach.

The community-based approach to preservation is also used to mean something different: the ability of everyone to be involved in preservation decision making. For example, in Berlin there was considerable public dialog about the design and site selection for a new Holocaust memorial. And in San Francisco, citizens selected—via the Internet—which historic building would receive preservation funding, in an “American Idol”-like poll set up by the grant funders (Nolte, 2006).

Is a pluralistic approach to preservation useful? Or, will it lead to too much preservation?

Rem Koolhaas has asserted that “Preservation Is Overtaking Us” (2004). He looked at old practices with respect to the interval between the creation of an object or the occurrence of an event and what was preserved. In 1818 the notion of preservation was that objects two thousand years old need to be preserved; in 1900 it was two hundred years; and now it is twenty years; or less. Koolhaas has not undertaken a systematic, historic study of preservation. Rather, he is trying to make the point that we sometimes preserve items before we have ascertained whether they have value.

Koolhaas believes that we are about to experience the “slightly absurd moment, namely that preservation is overtaking us. Maybe we can be the first to actually experience the moment that preservation is no longer a retroactive activity but becomes a prospective activity” (Koolhaas, 2004, p. 2). In historic preservation there has been a move from only preserving ancient or religious buildings to preserving structures and sites with “more sociological substance . . . to the point that we now preserve concentration camps, department stores, factories and amusement rides. . . . [E]verything we inhabit is potentially susceptible to preservation” (Koolhaas, 2004, p. 1).
Actually, archivists and librarians—particularly those working in a digital environment—have already figured out that preservation must be prospective, which is why metadata, trusted repositories, and light and dark archives are the strategies du jour. When we risk losing so much, do we have the time to make value judgments about what to save? Or by trying to save so much, is everything we read “susceptible to preservation”?

**Synthesis: Poetry of Reason**

It is appropriate to end this discussion with an additional example: the restoration of the Hamar Cathedral, which was built in the beginning of the thirteenth century near Oslo, Norway. In 1567, during the Seven-Year War, the cathedral was set on fire. Later, the ruins were used as a quarry. The cathedral’s stones were carried away to be used in the construction of other buildings. And over time the cruel winters reduced the masonry still further. How to preserve it?

The architectural firm Lund & Slaatto created a protective glass structure consisting of 1,675 panes of glass with 690 shapes (“The Protective Structure,” 2004). While glass cases and other protective enclosures are not novel, their purpose is usually to restrict the use of the original. In this case, it has increased its use. The new structure is magisterial, evoking the original basilica with its high nave and lower vaulted sides. “The protective structure is primarily a technological rig providing protection from the elements, to preserve the ruins in a climate-controlled environment” (p. 121). Yet, as the architects also point out, “the universe forms a visible vault above the ruined basilica, at all times of the day, night and year—indeed a very poetic and beautiful concept! (p. 124). Since the restoration, the building has once again become a gathering place for weddings and other ceremonies.

The paradox is that the overall structure—the ruins plus its glass encasement—now constitutes the overall notion of “cathedral.” The preservation activity yielded a new concept of what the building literally and figuratively stood for.

**Paradox Redux?**

We can preserve some things some of the time; but not everything all of the time, and we cannot operate purely under an old custodial model. In fact, the model seems to have a major flaw in it in that it looks at preservation only from the view that preservation is imperative. As I have indicated, this is not always the case. The role of libraries, archives, and museums has gradually transitioned from “cabinets of curiosity” and “storehouses of knowledge” to dynamic models of outreach. Today, users and visitors are just as likely to read journal articles online, or view in Iceland, the collections of the Getty, as they are to enter the physical doors of a museum or library. At the same time, branches of museums such as the
Guggenheim are opening around the world, and the Louvre is “renting” its collections to a museum on the newly created Saadiyat Island, off Abu Dhabi. Since access to knowledge aims to become universal, our notions of preservation must continue to evolve to accommodate the imperatives of all our clientele. With a world’s worth of cultures with myriad views, we are facing what might be a truly unsolvable paradox. The more users we reach out to, the less likely we are to achieve any consensus on what to preserve and how to do it.

There is no irony in the title of this paper. Preservation is indeed a paradox, without a universal solution. It is important that we incorporate all of its manifestations—all of its reasoning—when we engage in preservation activities. The Paradox of Preservation refers to the problems we all face in deciding what to do. The solution to the problems is uncertain and the definitions of preservation will continue to evolve.

Notes
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References

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Defining Digital Sustainability

KEVIN BRADLEY

ABSTRACT
This paper investigates what is meant by digital sustainability and establishes that it encompasses a range of issues and concerns that contribute to the longevity of digital information. A significant and integral part of digital sustainability is digital preservation, which has focused on one technical concern after another as issues and fashions have shifted over the last twenty years. Digital sustainability is demonstrated as providing an appropriate context for digital preservation because it requires consideration of the overall life cycle, technical, and socio-technical issues associated with the creation and management of digital items.

INTRODUCTION
If digital technologies had a sense of humor, a joke between them might run: There are ten types of technologies in this world: those that understand binary, and those that don’t. Digital storage and delivery technologies allow the encoding of meaningful representations into two states, 0 and 1; a state of being and a state of not-being, of on and off, of plus and minus, or of falling below or climbing above a defined or given threshold. If the permanent maintenance of any given state, or set of states, was the definition of digital sustainability, then we could merely select a suitable technical strategy to permanently inscribe those states and entrust the objects to an appropriate storage and preservation strategy. However, the layers of dependencies and interdependencies, standards, agreements, understandings, technologies, strategies, workflows, and business models render that simple preservation model indefensible.
Thinking about some of the protocols associated with storing and accessing digital coding may help to illustrate these intricate dependencies. A bit, the lowest level of information, is meaningful only in relation to other bits with which it is associated; eight bits form a byte, and a word length might be 16-, 32-, or 64-bit depending on the operating system and the type of data. The word may exist, but it is just a seamless string of digits unless the system knows where the word or byte starts and finishes. The data is allocated a place on a disc that is formatted in a particular manner. The Microsoft disc operating system (MSDOS) uses a file allocation table (FAT), which may be either FAT 12, FAT 16, FAT 32, or FAT 64, depending on the memory space and partition size. In a UNIX environment the file system structure is managed by a protocol called inodes. Mac computers have used inodes as a sectoring protocol since the 2001 operating system OS X was released, and their own proprietary system for OS 9 and all earlier operating systems. As well as these there are many legacy disc structures associated with operating systems no longer supported; eventually all the current systems will also become legacy. Various tables and structures define the “address” at which data may be found.

Some systems, such as compact discs, use a small range of hard-coded words to describe the original word, and a lookup table is needed to associate the coded word with the stored word. If the data is backed up on tape, as is customary, then there are a different range of data storage protocols, tape standards, and potentially complex compression algorithms. Assuming the data can be found, and the appropriate word substituted where necessary, the operating chip will need to know if the word is big-endian or little-endian. The byte stream is described as little-endian when the low-order byte of the number is stored in memory at the lowest address, and the high-order byte at the highest address; big-endian is the reverse. This is an issue for the operating chip; the chip used in PCs have tended to be little-endian, while those used in Macs tend to be big-endian. As a consequence file formats developed on one platform or another may specify byte order. For example, a bitmap (.bmp) specifies a little-endian byte order, while a JPEG expects big-endian. TIFF image files can be big- or little-endian, and encodes in its metadata the form to which it conforms. The byte order can be reversed, but the system knowledge that this is necessary is essential.

The host computer must have access to enough coded information to allow it to recognize the binary file format and associate it with the appropriate piece of software. The version of the file is generally only known after the file is opened; then rendering software attempts to open the file if it is a version that it recognizes.

If the file is character-oriented, it will be necessary to decode the character set, which may be described in 7-bit or 8-bit ASCII (American Standard Code for Information Interchange), or UTF-7 or UTF-8 (Uni-
code Transformation Format), or a number of variants. Various lookup tables describe the relationship between the code and the text it represents. Characters associated with a particular language are an issue, and the character sets might contain Chinese, Japanese, or Korean characters (CJK) or Arabic characters, the transliteration to Roman code described in the standards ISO 233 or DIN 31635. Similar standards exist for other character sets.

The browser or rendering software, if it is needed, must not only be appropriate to the version of the file, but also to the operating system on which it will operate. If the file we are trying to preserve is an executable file, it too must have the appropriate operating system on which to run. The operating system must be the proper service pack, have the correct patch and install levels, and have the appropriate device drivers. A specific example of the level of compliance required, as well as an area of constant problems, might be the dynamic link library (DLL), a file that stores data used by Windows programs and links to those programs at "runtime." Often the DLL used by a particular program is missing, corrupted, or altered by the hardware or by another program that shares it in use. This generally produces an error message and requires a reinstallation of the DLL file. The number of DLL files available is very large and the process of identifying, tracking down, and installing the proper file is described by IT support staff as "DLL hell." Changes to the kernel, which is responsible for process and task management, and memory and disk management, can render a program inoperable, as can the inability to locate low level libraries in UNIX systems. The way in which operating systems and programs interact is complex, subject to change, and mediated by commercial interests; and faults or incompatibilities in any of these areas can make the whole system seem very fragile.

Besides the software interaction, file functionality also depends on standards, agreements, and understandings in interfaces, cabling, and hardware, and still this represents just a small set of examples of the complex interdependencies and detailed interaction that goes into making a digital object renderable. Though there are few who understand in detail each and every level, most IT professionals and support staff have a more than passing understanding of what roles each part plays. As long as the system operates transparently, that passing understanding is more than adequate to manage the system. In the event that the detailed infrastructure underpinning access to even the simplest digital object no longer functions, the level of knowledge would not allow support staff to rebuild it in new technologies.

Extensible Markup Language (XML) is perceived by most in the digital archiving community as an open, transparent and extensible way of encoding and accessing digital information. XML is the favorite format of those who are concerned with the longevity of their data. However, there
are layer upon layer of invisible technologies, standards, and agreements that enable XML documents to be transparent. At some level, as most people know, even XML is just a bunch of aligned magnetic domains on polyester tape.

So why am I using up paper and pen, as Sigmund Freud once said, “in order to expound things which are, in fact, self-evident”? (Freud, as cited in Derrida, 1996, p. 8). Simply this: to make the point that thinking of digital preservation as consisting of rendering a file or bit stream permanent is a pointless and futile exercise. The new field in which digital preservation plays a part recognizes that the infrastructure supporting the functionality of digital objects must itself be sustained in order to maintain access to their content and meaning. This may be the technology used to create and access the data contemporaneously, or the means to present old data with the new technologies as they emerge. However, meaning does not reside in the technology, and data streams cannot sustain themselves. In sustaining digital information it is necessary to consider the organizational, socio-technical and economic infrastructure, as well as the purely technical and structural issues associated with digital information.

This paper defines the concept of digital sustainability as encompassing the wide range of issues and concerns that contribute to the longevity of digital information. Digital preservation, a significant and integral part of digital sustainability, is shown to have changed its focus from one technical concern to another as issues and fashions have shifted. Digital sustainability, it is demonstrated, provides the context for digital preservation by considering the overall life cycle, technical, and socio-technical issues associated with the creation and management of the digital item.

A SHORT HISTORY OF DIGITAL PRESERVATION

Digital preservation has, at the least, a lexical link to preservation, and, at best, a philosophical and conceptual base embedded in the aspirations of traditional conservators. The profession of preservation and conservation matured both technically and philosophically in response to the 1966 disaster that saw the River Arno in Florence break its banks and wreak disaster upon a store of priceless cultural heritage objects. Practitioners and thinkers in the conservation field rallied in the salvage effort, and, in the aftermath of the flood, participated in a long reevaluation of traditional practices. The modern field of preservation has evolved from this process.

Water also played a role in one of the pivotal moments of digital preservation. In the early 1980s those concerned with keeping information on flexible magnetic media or tape recognized that the binder was subject to dramatic and catastrophic failure. The process of failure was identified as hydrolysis, the chemical decomposition of the binder by the addition of water in which the water reacts with a compound to produce other com-
pounds. The other compounds produced turned the tape binder into a sticky mass, which introduced a high level of errors into the digital system and eventually made the content of the tape completely irretrievable. Technical experts rallied, the process was explained, and a treatment was developed that made the content of the tapes temporarily accessible (Bertram & Cuddihy, 1982; Brown, Lowry, & Smith, 1983, 1984, 1986; Cuddihy, 1980). Publications began to include the word preservation in connection with the treatment of data and data carriers, and the audiovisual archiving community began to participate in the research and debate as audio and video tapes succumbed to the same syndrome. The question remained unanswered (and to some extent remains so today): did the failure of the tapes’ binder point toward the eventual fate of all polyester urethane tape binders, or was it an aberration caused by inadequate manufacturing control?

The answer to the tape binder question, however, gradually began to be of less importance to the emerging field of digital preservation. The process of attempting to solve that problem led to a new set of questions for those concerned with preserving the growing archives of digital content. A treatment that provided temporary alleviation of the symptoms of hydrolytic binder degradation, and, therefore, made the data retrievable for as long as the solution retained its efficacy, was developed, but it produced a dilemma. Clearly the data had to be copied to a new carrier, but if the only viable storage technology, tape, had a limited life expectancy, how could the data be managed?

The established manufacturers responded to their customers’ growing concerns about the life of their storage media and began to develop long-term carriers. Two companies, Creo and ICI, combined to produce the terabyte optical tape; Sony produced the much vaunted century media, an optical disc. Both of the new carriers measured their life expectancy in decades, and the Sony solution utilized WORM (Write Once Read Many) technologies, which, as it was inerasable, was marketed as an added preservation measure. The customers of the major companies, looking for solutions to their digital storage needs, did not support either of these technologies, or any of the others that appeared contemporaneously with the optical developments. Instead, the market adopted what Christensen (2000) would identify as a disruptive technology, pure iron particulate on polyester tape in cartridges.

The data cartridge tapes can be described as disruptive technology, from the view of digital preservation, for a variety of reasons. First, the manufacturers had not estimated the life expectancy of their tapes in decades, if at all; rather they described usable life in terms of number of passes. The useful life of the individual tape was, in other words, limited by the number of times the data could be accessed, a figure that could be easily measured. Additionally, manufacturers published development
roadmaps predicting when the current generation would be superseded and when they would become obsolete. The actual life of the tape was, to a large extent, irrelevant. The earliest generations of these cartridge data tapes, especially those manufactured using first generation metal evaporative techniques, were notoriously unreliable. Soon technologies developed around these tapes, such as tape robots, error measurement, and storage management systems, which compensated for the individual tape’s inconsistencies. Instead of depending on the reliability of the carrier, data managers invested in the reliability of the system. Permanence was no longer in the carrier, but in the ability to migrate the byte stream from the superseded carrier to a new carrier within the system, and, ultimately, to the next and all subsequent storage systems.

The question of how to build a permanent carrier was never really answered; the answer changed the question, and the concerns and questions that occupied the minds of digital preservationists shifted to new issues. Though pockets of research still continue, and occasional news releases herald the latest everlasting media, the digital preservation community has, by and large, abandoned any interest in such enduring storage solutions. The goal of a permanent media has been wrecked on the rocks of relentless progress. Even if any media could be claimed and trusted, as permanent, the quandary is that within a short period of time the storage system would be technically superseded by storage media exhibiting superior performance specifications, and manufacturers would no longer support the old technology. Eventually there would be no functioning replay equipment to access the supposedly permanent media, and, even if there was, the technically slow performance of the old technology would make the transfer to a newer and faster storage media attractive. However, with the realization that carriers changed in response to the market came the recognition that the same was happening to file formats and access software—a threat that caught the attention of the second wave of digital preservationists.

Migration of the data from carrier to carrier was the solution to the problem of carrier failure, and a similar scenario was envisaged for the problem of file format obsolescence. The future of digital information would be linked to its past by a series of actions that would result in the current, transformed version of an item being accessible using current access technologies. The risks associated with cumulative migrations concerned many thinkers, and emulation was promulgated as an alternative, most notably by Jeff Rothenberg (1998). The risk posed by migration was seen not just as corruption of the data, but alteration of the “look and feel,” or a loss of “significant properties.” The value of emulation, Rothenberg argued, was that of always operating on the original byte stream; that is, the intentions of the document’s creator would be better preserved by leaving the byte stream unaltered and introducing software instead to
make the old formats accessible on new technology. The relative value of
the two approaches seemed to dominate digital preservation discussion
from the mid-1990s, and the measure of potential success was quantified
in terms of their ability to maintain the “look and feel” or preserve the
“significant properties.” Permanence was shifting, in this debate, from
concern with the bits to concern for the content.

The issues of migration and emulation no longer dominate the agen-
das of meetings and conferences. Most people involved in making deci-
sions about digital collections are comfortable with the notion that it will
be necessary to take one approach or the other, and they are content to
make that decision when the time comes. They also recognize that that
decision will be made more than once, and can be remade as required,
at least for the first generation of changes. Major or quantum changes, of
course, may well demand a definitive and final decision, but the current
range of incremental technological changes means that the time of the
disruptive and irreversible change is not yet here.

Discussion of “look and feel” and “significant properties” has similarly
waned, not because these are not important or do not exist, but because
there has yet to be found a way to automate and make this information
machine-readable. “All God’s children got significant properties,” we can
sing in unison, but this takes us no further if we cannot define its meaning
in such a way that we understand what properties are under consideration,
and describe them in a way that is machine-readable and automatically ac-
tionable. Defining significant properties runs up against the philosophi-
cal issue associated with any epistemology—knowing how we know these
things in an objective way. It does not take long to reach a point where
significant properties are those properties capable of being described as
significant, and an object’s being is its significance. The pragmatism of
technologists unable to resolve a philosophical dilemma leads to either
broad and necessarily imprecise decisions about classes of materials, or
to a position that aspires to preserve all of the properties that might exist
in that digital object, and a recognition that a decision about what will be
lost in a class of materials will have to be made at the time that an object-
changing preservation action has to be taken. The pragmatic digital pres-
ervation community has moved on to the next wave of concerns.

The underlying and implicit conclusion of the discussion of the previ-
ous two digital preservation paradigms is that permanence in access is the
critical measure. Using a term like access requires some explanation. It is
not only about the ability to find and retrieve an item, but also the ability
to use, view, listen to, interact with, display, or run the digital item in such
a way that users can be assured that what they are viewing satisfies their
needs. This may, for example, be a requirement to see exactly what the
creator originally intended, the identical look and feel, or it may be the
ability to find and interrogate the same data, or simply to be able to read the same text.

At the same time as access to content was developing into the main debate, and migration and emulation were the topics under discussion, the concept of a Universal Virtual Computer (UVC), developed by IBM staff members Raymond Lorie (2002) and Henry Gladney (2003, 2004), began to be discussed. Rather than develop permanent carriers, the proponents of this concept argue for a simple and long-term approach that can be recompiled at a future date, and enable the extraction of the data so that behaviors that can be modelled on technologies that are in use at the time of access. The UVC concept seemed to cut through the issues associated with the ability to render the content on future systems and platforms. Apart from trial projects, such as the Koninklijke Bibliotheek’s image archiving project (Van Wijngaarden & Oltmans, 2003), the UVC has not been widely embraced by the digital archiving community.

The UVC addresses the issue of future format obsolescence by isolating the digital object from mainstream systems in a form that expects to allow rendering at a future time in systems that are not compatible with present-day technologies. Similar in intent, though different in the level of implementation, are systems that seek to encode the archival digital object or encase it in a wrapper, generally a form of XML, that is so open and transparent that future actions to render the digital object in a new operating environment will present few problems. The National Archives of Australia’s XENA (XML Electronic Normalising of Archives) is an example.

These systems solutions are underpinned by an episodic model of digital preservation, where the pressures of impending obsolescence force a quantum change in form at some given time. The unchanged data is retrieved from the permanent store and recompiled or re-rendered in a new environment. After making the leap to the new state, or format, the new form is stored in either a compiled or normalized XML-like form, quiescent until the need for another change occurs. Though I identify a philosophical similarity between the two approaches, they are not identical. The XML normalization approach is not dissociated from current technologies to quite the extent that the UVC is, and so the interval between necessary migrations is shorter. Also, XML normalization involves many upfront decisions about significant properties, or performance, that are left until later in the UVC.

In the repositories and digital archives, preservation is increasingly being defined as sustainable access. The Australian Partnership for Sustainable repositories (APSR) “has an overall focus on the critical issues of the access continuity and the sustainability of digital collections” (McGauran, 2003). The emphasis on access as a measure of preservation has led to a
natural alliance with those concerned with content delivery, and a growing awareness among repository managers and digital library personnel of the need to expose their data to a growing range of sophisticated users, with the ability to “feed back” to the host archive. The current digital preservation paradigm thinks of digital objects as parts of a complex relationship, continually changing their content as well as their form, constantly being required to interact in new ways in intricately constructed systems. The label-hungry marketing environment might say the new concern is Web 2.0, as compared to Web 1.0, but such labels themselves suppose a hard distinction that is not so easily drawn. Nonetheless, the concerns of the current environment are in the area of system architectures, standards, metadata, and tools. It is a sophisticated field requiring solutions to the challenges raised by long-term access to digital information that are more integrated than the earlier, more one-dimensional approaches. Rather than looking for quantum-level solutions, the current problems are addressed poco a poco, little by little, buttressing the existing approaches with solutions that address interoperability and access in ongoing systems. The critical tool in this process, one that is the center of today’s digital preservation debate, is the digital repository, which ideally holds the materials, provides access, tracks the changes, and maintains the authenticity of the item to the extent that is necessary in each individual case.

There is also recognition that the ability to preserve and provide access to digital information is linked to more than technical issues, and that economic, social, and other such factors will play a part in determining the useful life of any information encoded in digital form.

**Digital Sustainability and Other Competing Labels**

“Sustainable” and “sustainability” only recently have taken on the meaning that now seems so familiar to us, and have become a new part of the lexicon. In the earliest recorded usage of these words they meant something different. One might sustain a belief, or sustain an argument, but it was not until the 1960s that “sustainability” began to take on an economic as well as a temporal sense. By the early 1980s, “sustainable” had begun to be associated with concerns regarding the environment. Since then the word has continue to expand in its usage; the Victorian Government has a Department of Sustainability and the Environment (http://www.dse.vic.gov.au/dse/), which links sustainability to the issues of environmental impact, but the Australian Capital Territory Government has an Office of Sustainability that is “committed to creating a sustainable Canberra” and “developing, facilitating and coordinating the implementation of guidelines, policies and procedures related to sustainability” (ACT Office of Sustainability, n.d.). It is difficult to read a paper, view a blog, or listen to a news broadcast without finding a new use of the word sustainable or a new context for its application. The popular meaning is derived from
the movement among the environmental groups to represent what were previously non-negotiable ideological positions as potential actions with economic costs. This change has opened negotiation between environmentalists and those who might exploit the environment by making the long-term costs of any particular case of environmentally degrading action a part of the present debate. Every describable aspect of the economic and socio-economic consequences of a decision is included in the debate, including the economic value of the environment.

In the sustainable digital environment, the same inclusive debate is occurring, and here the word is used to mean building an economically viable infrastructure, both social and technical, for maintaining valuable data without significant loss or degradation. This includes the whole socio-technical composition of the repository, the short- and long-term value of the material, the costs of undertaking an action, and the recognition that technologies do not sustain digital objects: institutions do, using the available technology. Clearly it is not possible to preserve digital information without a sustainable organizational, economic, social, structural, and technical infrastructure, nor is it sensible to preserve material without sustained value.

Access to digital materials is maintained daily by data experts as they manage and modify content and react to the changing technical environment. The approach is neither sustainable nor in keeping with preservation requirements if it is not managed with the long-term accuracy and authenticity of the digital item in mind. Digital repository software, though in the early stages of development, must be able to manage and maintain records of change, original formats, and relationship and version information to describe the processes that led to the current form. A static copy will not satisfy the ever-moving present, and a changed copy without adequate documentation will not satisfy those concerned with authenticity. Clearly repositories, incorporating the sort of functionality and exchange standards necessary for long-term reliable use, are at the center of sustainable development.

However, the software that makes a digital repository is subject to the same changes and technical limitations as the data it manages. Practical repositories are products of the technology of the day and are consequently as much at risk as the content they manage. The DSpace Federation makes this explicit when it states that “it is an overt expectation that information assets managed by the DSpace system will outlive the current system, the current implementation of components within the architecture, as well as external implemented services that access and/or add value to the corpus” (Bass et al., 2002, p. 1).

A sustainable approach to repository design is one that considers, at its outset and through design and execution, future digital repository implementations that may not support or be supported by current standards
and technologies. It is clear that no repository will provide a complete solution to the problems of sustainability, but neither is it possible to envisage a workable solution that does not incorporate a viable, well-designed, digital repository.

Like the environmental movement, the sustainable digital community is defining its approaches in terms of economic factors. A maxim of digital preservation is that access to meaningful digital information will not be achieved through benign neglect, a strategy that has worked in physical collections for many decades. This is both self-obvious, as maxims should be, but also contestable. It may be that data, in the form of an ordered stream of bytes, will survive with minimal backup strategies for future users to decode. This, however, does not provide access to content, merely to bytes. The cost of providing meaningful access to the content through the use of digital archaeology skills and data experts who labor in the future to retrieve the meaning will almost certainly be crippling high, and not necessarily successful (Gladney, 2004). Little is lost forever, goes this argument, unless retrieving it is unaffordable. Archiving data as a basic byte stream and allowing the future to make the decision about whether to fund access is the logical extreme of the economic argument. It is not, however, sustainable by any of the definitions considered here.

The alternative to leaving access problems for the future to solve is to undertake a range of preservation activities in the present, which will facilitate access in the future. These activities might include developing preservation metadata schemas, normalizing encoding, creating multiple versions and copies, or migrating strategies or systems to enable future emulation. The pre-emptive strategies are probably much more cost-effective per digital item when compared to the projected cost of digital archaeology, but quite expensive when spread across the vast collections of potentially useful data.

A sustainable approach must navigate through the economic environment, determining whether it is more cost-effective to undertake a certain action in the future, or whether the present is the most economically propitious time to undertake some preventative task. Digital preservation, if it is to be sustainable, is an economic issue, one that advocates investment in the present to ensure access in the future. As some have noted, with the advent of digital authoring and distribution technologies, our developing capability to manage and sustain such information is being outstripped by our ability to produce it. Some have posited that, along with the necessary technological infrastructure for sustainability “must come the development of the associated economic infrastructure” (Lavoie, 2004, p. 46). Wise decisions will maximize economic resources and thus make access more sustainable.

Understood in these terms, digital preservation is as much an economic issue as a technical one. The requirements of ongoing sustainability de-
mand a source of reliable funding, necessary to ensure that the constant, albeit potentially low-level support for the sustainability of the digital content—and its supporting repositories, technologies, and systems—can be maintained for as long as necessary. It is not too strong to say the biggest single risk to sustained access to digital information is economic.

Because a sustainable approach is underpinned by continuing access, there is a need to ensure that economic decisions do not reduce the possibility of such access. A sustainable approach must also take account of other risks that any action or inaction might instigate through informed, though necessarily subjective, judgment. A sustainable approach must have accurate and informed risk identification and assessment, drawing on highly skilled or informed experts in the area. This is critically necessary in determining the risk to sustainability of digital objects, as the most likely failure mechanisms are not well understood, other than those caused by a cessation of funding.

Economic considerations are not limited to the cost of an action. The value of the content is another factor to weigh. A sustainable approach would be to ensure that the material acquired is of high significance to future researchers. It is very unlikely that a collection of low research significance will survive in the long term, as resources will always be allocated to high value materials first. However, associated with the choice of the most important collection items comes the risk of not selecting the content that will be most significant in the future. What we think is valuable now, may not be so in the future. Selection is a sustainability issue. Anthony Seeger made explicit this incongruity at a 2004 ethnomusicological research conference when he asked:

> What is more valuable in the long run, researchers’ theories or the by-products of research, like recordings and other collections? How many important theoretical articles published between 1900 and 1920 influence your current work? Wax cylinders recorded during that period are extremely valuable to both their original communities and contemporary researchers. Ironically, the by-products of our research may be more significant than our soon dated theoretical insights.
> (Seeger, 2004)

A sustainable approach must recognize and plan for future users as well as the exigencies of current demands.

Not all data will, or should, be sustained in perpetuity. Though costs are a function of many variables, not least the range of archival services, the archival period of retention is a significant factor (Lavoie, 2003). Planned retention of digital materials for the appropriate period is part of a sustainable approach. Certain datasets or learning objects may have intellectual, teaching, or research value for only a short period of time, possibly shorter than the life of the target sustainable repository. If sustainability is the primary aim of the repository, it may be valid to exclude...
such materials, or to provide a limited type of service. Other materials may be considered valuable for a medium period of time, in which case the time between ingest and access may not be so great as to have incurred the problems caused by format obsolescence and impaired access. It may be possible to attach a reviewable lifetime rating to identified digital objects, and so reduce estimates of costs on objects so designated. The decision to delete after a given period can be reviewed, or the material can be assessed and deselected. It is worth considering, though, that the cost of expert review may well exceed the cost benefits of deselection and disposal, and would be, in these circumstances, an unsustainable strategy for managing the collection.

The sustainable repository must consider the barriers to participation and use. As economics is largely a matter of incentives and inhibitors, the use of such strategies can be applied to encourage users and depositors to participate in use of a digital repository. The economic incentives might be, for example, designing interfaces that facilitate deposit or access. Determining whether sufficient benefits were gained by participating in the use of the repository, and applying appropriate incentives where the benefits were insufficient, is a part of the same strategy. A collection of digital information is not sustainable if it has too few contributors or insufficient users to justify its existence.

The complex technical infrastructure that supports digital sustainability, the dependency on continued funding, and the likelihood that digital data will not survive extended periods of neglect means that digital repositories need stable technical support as well as resources. It follows that digital repositories are dependent on the ongoing existence of the sponsoring organization. This has been clearly recognized in an audit checklist for the certification of trusted digital repositories (RLG-NARA Task Force on Digital Repository Certification, 2005), and its prequel, where “organization” is a significant category. The sustainability of the organization, its funding and its business plan are critical to certifying a digital repository as trusted, at least equally with its technical infrastructure.

It is not only the business models and economic structures of organizations that are critical to the sustainability of digitally encoded content. An appropriate persistent identifier scheme and the ability to manage a resolver service that continues to locate digital objects intended for long-term use are also dependent on the sustainability of the institution or organization. A sustainable repository must be able to locate an item, but must also be able to resolve historic references to that item by those who use and cite it.

If a repository is at risk because of the vulnerability of the organizational structure that supports it, then the structure of the repository, the interoperability of the metadata and data formats, and the ability to seamlessly migrate to alternative repositories is an integral part of any plans
to manage sustainability. The metadata schemas, standards, and architectures must themselves be sustainable, and open and well described, so that their purpose and essence can be mapped and transformed to support the new systems that will emerge.

What distinguishes the contemporary sustainability approach from earlier aspirations to a “permanent” solution is the concentration on systems architectures and schemas that will aid in future management of digital information, rather than on the solution itself. The work on preservation metadata, the open archival information system (OAIS) producer model (Consultative Committee for Space Data Systems, 2002), the architecture and design of digital repositories all point to approaches that are designed to facilitate long-term access to digital information by enabling and informing future users so that they can maintain access to the digital content we are storing today.

There are two other terminologies that in part support the sustainability approach: curation and stewardship. Curation, as defined by the Digital Curation Centre (DCC), emphasizes the mutable and changeable nature of digital information by focusing on “maintaining and adding value to a trusted body of digital information for current and future use” (Giaretta, 2006, section 1.1). A sustainable approach must recognize the need to maintain access to content that may, for much of its life, be changing, and that change itself is a necessary part of that maintenance process. Clifford Lynch’s categories of stewardship, caring for information and cultural heritage, honoring our relationship to history, and preserving cultural heritage for the benefit of future generations, lays weight upon the scholarly traditions of selecting content for the future. The decisions lie in the present, though they may not be understood or realized until some future time.

The relationship between the approaches (sustainability, stewardship, and curation) may be best understood graphically, in a Venn diagram, showing the overlapping nature of the approaches (See Figure 1). All of these approaches recognize to some extent that the technical systems to preserve the information are necessary in order for there to be content to sustain. The common ground among the three can be described as preservation. Stewardship and curation share many aims, but the concepts embodied in sustainability overlap substantially with both.

A sustainable approach recognizes the need for society to support sustainable access to digital information, an economically expressed need, coupled with the resources necessary to undertake it, and an organized and structured community to need and support it. The technical systems and infrastructure must themselves be open and sustainable, but critically there must be a recognition that the processes put in place today are not the permanent solutions to digital access, but merely the tools that future users of the digital information will need to facilitate access to the content
Digital Sustainability, Preservation, Curation and Stewardship

Organizational, Economic, Social, Structural, and Technical Issues

Sustainability

Concerned with Viability, Readability, Understandability, Authenticity, and Identity

Preservation

Stewardship

Cultural, public policy, and ethical questions about how and what we remember and forget

Maintaining and adding value to a trusted body of digital information for current and future use

Figure 1.

encoded in those files, and to help them make a decision about its worth. Digital sustainability recognizes that the responsibility for access is shared by those in the present and the users of a future time, a time that may be as close as tomorrow, or in the dimly perceived future, and for as long as a society and a socio-technical system still exists and wishes to care for and sustain the information stored.

Note
1. The extensions of the meaning of the word “sustainable” are traced in Oxford English Dictionary (Simpson & Weiner, 2006). A source from the 1960s supports its usage in the economic sense:

3. Capable of being maintained at a certain rate or level. 1965 McGraw-Hill Dict. Mod. Econ. 501 Sustainable growth, a rise in per-capita real income or per capita real gross national product that is capable of continuing for a long time. A condition of sustainable economic growth means that economic stagnation will not set in.

Sources from the 1980s are used to support a 2002 draft addition to this definition “Ecol. Of, relating to, or designating forms of human economic activity and culture that do not lead to environmental degradation, esp. avoiding the long-term depletion of natural resources.”

References
Tending the Garden or Harvesting the Fields: Digital Preservation and the UNESCO Charter on the Preservation of the Digital Heritage

YOLA DE LUSENET

ABSTRACT
The UNESCO Charter on the Preservation of Digital Heritage, adopted in October 2003, is important for affirming the role of (national) heritage institutions and extending existing systems for preservation of documentary heritage to cover digital materials. This approach has distinct advantages, but has also been criticized for taking too narrow a view of the dynamic diversity of the digital environment, particularly as found on the Web. To understand what digital heritage is, it is useful to look at the current debate on preservation of intangible heritage, as both share a number of characteristics. The charter is examined in the context of UNESCO programs on culture to indicate its relevance for UNESCO’s mission and to point to political aspects of digital preservation that cannot be ignored.

BRIEF HISTORY
On October 17, 2003, the thirty-second session of the General Conference of UNESCO adopted a Charter on the Preservation of Digital Heritage, a milestone in a process that had started several years earlier and that continues to this day. The charter is one of the UNESCO activities for safeguarding the documentary heritage and is closely connected to the Memory of the World Programme, which aims to preserve and promote cultural heritage through digitization projects, the publication of guidelines, and the Memory of the World Register of well over a hundred works of exceptional importance.

The UNESCO Charter on the Preservation of the Digital Heritage was a response to the concern voiced by memory institutions that digital materials (primarily those digitally born) will become inaccessible in the near
future unless widespread and structural measures are taken to guarantee continued access. It is significant that the Conference of Directors of National Libraries was involved in the very first stages, and that the European Commission on Preservation and Access, which promotes the preservation of collections in libraries and archives, prepared a paper to open the discussion in early 2002. This was followed by a draft text for the charter that was reviewed during the phase of consultation taking place in 2002 and 2003. The consultation included extensive discussion of the draft guidelines for digital heritage written for UNESCO by the National Library of Australia (2003). The latter text, a substantial document of 170 pages, presents general and technical guidelines for professionals responsible for safeguarding access to digital materials, and is intended as a companion volume to the charter.

Both documents were discussed at regional meetings in 2002 and 2003 (for Central Europe, the Baltic region, Latin America and the Caribbean, Asia and the Pacific, and Africa), which were attended by some 175 experts from 86 countries (National Library of Australia, 2003, p. 7). Once the charter had been adopted, several workshops on digitization and digital heritage took place, most recently in Ethiopia in August 2006. This workshop was one of three—the others will be organized in Botswana and South Africa—to support regional implementation of the charter and the guidelines.

Text of the Charter

The charter (UNESCO, 2003a) begins with a broad definition of digital heritage as embracing “cultural, educational, scientific and administrative resources, as well as technical, medical and other kinds of information created digitally, or converted into digital form from existing analogue resources” and to include “texts, databases, still and moving images, audio, graphics, software and web pages” (Article 1). The text points to the variety of factors that endanger the life of digital materials; not only obsolescence of hardware and software, but also uncertainties about resources, responsibilities, and methods for maintenance and preservation, and the lack of supportive legislation (Article 3). The emphasis is on attitudinal change, which “has fallen behind technological change” (Article 3), on advocacy, policies, and legal frameworks. Thus the intent of the document is to emphasize that more will be needed than referring the matter to professionals who can provide technical solutions. As it aims to outline the principles of digital preservation, the text is general, leaving room for further specifications during implementation.

The document reflects priorities articulated by memory institutions, which have long been aware of the problem and have been working on models, technological strategies (emulation, migration), preservation metadata, storage, the requirements for trusted digital repositories, etc.
However, in order for them to be able to move forward, major legislative and organizational issues need to be resolved at the governmental level. The charter, as a standard-setting instrument, concisely presents principles in order to encourage member states to undertake the necessary action. Archive legislation and (legal) deposit are mentioned as key elements of a national preservation policy. The charter emphasizes the need for selection criteria on the basis of “significance and lasting cultural, scientific, evidential or other value” (Article 7) as well as for guarantees to ensure authenticity. It refers to the need for coordination and sharing of tasks and responsibilities, possibly “based on existing roles and expertise” (Article 10).

For publicly funded heritage institutions, it is important that their governments recognize and support the institutions’ responsibilities. In most countries, national heritage institutions, unlike research libraries for instance, fall directly under the authority of a Minister of Culture and often cannot on their own initiative set priorities or allocate resources to specific programs. Official recognition of responsibility is therefore a condition for further activities, and it also enables institutions to assume national leadership. Governmental support is essential because the guidance they would be expected to give may well affect the organization and work processes within other institutions. As digital preservation needs to be considered throughout the information life cycle, producers of information preferably would have to comply with certain requirements, to ensure that access to materials can be guaranteed when they move into the care of a heritage institution. As stated in Article 5 of the charter, digital preservation “begins with the design of reliable systems and procedures which will produce authentic and stable digital objects.” For instance, national archiving bodies cannot passively wait until digital records that are created today are transferred to them twenty or thirty years from now, but will have to be involved in the design of information systems for record-creating agencies. This may involve redrafting procedures or reshuffling formal tasks and can only be brought about when an archival institution can act from a strong position with government support.

The text of the charter only refers to legal frameworks in a general sense and steers clear of any specific suggestion that preservation of digital heritage requires changes in copyright regulations. Whenever rights are mentioned, the right to access is carefully balanced against the rights of owners. There is no explicit recommendation to widen copyright regulations so as to allow copying of digital materials for preservation purposes, which would have been an important addition for heritage institutions. This was no doubt a strategic choice; mentioning a sensitive issue like copyright carries the risk that it will dominate the discussion on the political level, taking away interest from the core of the text and ultimately
blocking adoption. From UNESCO’s point of view, there are other platforms where copyright issues should be resolved. From the many references to issues relating to national responsibilities it is clear the charter builds on existing systems for preservation, which have been developed on the principle that each country should take care of its own heritage. The approach toward the new challenge of digital preservation is pragmatic in that it uses the lines drawn in more or less familiar territory and extends them to as yet uncharted terrain. A concrete example of the same strategy is the revision of the deposit regulations, which has been undertaken in many countries, to include all published materials irrespective of the carrier on which they are published.¹

**Different Views of Digital Heritage**

In November 2005 the Netherlands National Committee for UNESCO and the Koninklijke Bibliotheek, the National Library of the Netherlands, organized a conference “Preserving Digital Heritage: Principles and Policies” as a follow-up activity to the charter.² The conference focused on two aspects of the charter: selection for preservation, and roles and responsibilities. The papers from the conference demonstrated that in a number of countries national organizations are applying existing expertise and frameworks to the new environment. Deposit regulations are part of this, as are revised versions of concepts like “publication” and “archival record.” The paper by Catherine Lupovici of the Bibliothèque nationale de France, who is program officer of the International Internet Preservation Consortium,³ very clearly outlines the relationships between deposit and preservation of Web materials from the perspective of national libraries. Lupovici describes how, since the introduction of legal deposit for printed materials in France in 1537, the law has been periodically revised to ensure continuity of the national collection. Each time new technologies were introduced, the scope of deposit regulations was extended to cover the contents distributed on the new media, from printed illustrations through photographs to audiovisual and offline digital materials.

Deposit differs from collection building in that it does not select on the basis of user requirements but constitutes a comprehensive coverage of a class of materials; extending this principle to the Web environment logically leads to a harvesting approach in which everything in the national domain is collected. Another characteristic of the deposit system, the participation of the producers that submit materials to a national heritage institution, opens possibilities in the Web environment for collecting information in the “deep web” that cannot be retrieved by harvesting (Lupovici, 2005). Arguing for the existing practice for deposit Lupovici advocates that national libraries with responsibilities for Web archiving use a complementary approach of broad comprehensive harvesting, de-
posit by producers, and limited selective preservation of Web resources around specific themes.

There is a strong realization among heritage professionals that the task at hand is extremely complex and will depend for its success on the investment of substantial resources, and on the development of new technical expertise and cooperative structures. Judging by the number of conferences, working groups, task forces and pilot projects for digital preservation, the professional world takes the problem very seriously indeed. Their preference for an approach that builds on recognized roles and existing experience is a logical one and may well work best to bring things a few steps forward in a rapidly changing environment. Yet, at the conference in The Hague heritage institutions saw themselves confronted by criticism from the keynote speakers, who took a more academic line to the issue and characterized institutional efforts as an attempt to carry on “business as usual” in the face of digital hurricanes sweeping through the information landscape. Heritage institutions were described as “myopic,” “defining the digital world in terms of the institution instead of defining the institution in terms of the digital world” (Mackenzie Owen, 2007).

The emergence of the e-culture of blogs, podcasts, digital photography, webcams, gaming, mobile phones, Flickr, and MySpace, calls for radically new directions in preservation. Discussing social software and the virtual worlds of “massively multiplayer on-line role playing games” Uricchio (2007) raises the (rhetorical) question whether we can ignore all this, “fixating instead on the extension of traditional 19th and 20th century cultural forms in our digital and networked present?” For efficient and effective preservation of the digital environment, networked or distributed storage should take the place of institutional repositories, so as to make optimal use of technology’s potential for dealing with ever growing amounts of information and for increasingly powerful searches. Institutions, then, would no longer invest in selecting objects for preservation, but users would find their own way, with institutions providing access, context, and interpretation to a digital environment in which interaction and processes can be traced. As Bearman (2007) describes the position of archives in this future model: “Rather than trying to apply traditional archival methods of appraisal of records, archives define algorithmically what records will be retained for how long, after capturing all transactions at the time of transmission.” This vision contrasted markedly with the pragmatic views of professionals looking for workable solutions to preserve from the flurry of virtual activities what future generations may find worthwhile.

The diverging ideas at the Preserving Digital Heritage conference, on what preservation should encompass, uncovered some of the ambiguities inherent in heritage policies that can also be traced in the text of the charter. These ambiguities are inevitable, not just because the text is a
compromise resulting from a long review process, but also because there has to be room for different interpretations and emphases in a document meant to support digital preservation worldwide. For instance, in order to be universally applicable the definition of digital heritage refers both to information products and cultural works, which makes for quite a mixed bag of materials that originate in very different worlds. Information is a conveniently elastic term that can mean almost anything; in the context of heritage in libraries and archives it stretches from governmental documents that may be classified as records to be archived, to scientific publications for an international audience of specialists. Whereas a nation’s archives contain direct records of its history, most research literature is international in scope and has very little to do with concepts like “national” or “heritage” (except that there happens to be a convention that every national library preserves the publications produced in its own country). Moreover, for scientists themselves, when it comes to preservation, even the distinction between published articles and research data has become blurred; over the last year, Europe has witnessed a growing interest from the research world in preservation and access of “the record of science,” which includes the published literature as well as research data and is perceived only in some ways as akin to heritage. So if all these things are put under the umbrella of “digital heritage,” the strategies and requirements for their preservation will still be very different.

*Culture* is an equally diffuse term that is loosely employed in discussions on heritage, in a strict sense to refer to works of artistic expression, in a much broader sense to almost anything created, performed or enacted, or even to the way of life of a community, group, or nation. Eriksen has critically analyzed how the term *culture* can refer to different concepts in UNESCO documents (2001, Two Problems of Culture section). Even one type of cultural institution may at the same time have different functions due to the flexible application of the term. Archives, for instance, have a role as historical-cultural centers holding collections of regional publications, local radio programs, photographs, videos, private documents, etc., as representative of a “culture” in a certain period. They also preserve the records of administrative bodies and as such function in a highly regulated national system in which they safeguard the evidence of actions of official bodies. All of this is considered cultural heritage, but it comes to an archive for very different reasons and along different routes.

Moreover, the recognition that what is considered trivial today may be of serious interest to future generations thwarts any attempt to demarcate cultural heritage. Letters or diaries dealing with everyday concerns in the seventeenth century, popular novels from the nineteenth century, films from the first decades of the cinema, advertisements from the 1950s, pop music from the early 1960s—all these are now highly instructive and material for serious study. The growing interest in popular culture has rein-
forced the tendency to consider a wide variety of materials worth keeping, so that libraries are now preserving free local papers next to literary masterpieces and scholarly monographs, and audiovisual archives are keeping quiz shows, soap operas, sport programs as well as cinematographic heritage.

What can also be seen here is that nowadays, contrary to what the term *heritage* may suggest, memory institutions are for a large part engaged in collecting cultural products of our own time as part of their preservation responsibilities. It is not exactly true that time is always the Great Sifter of cultural or scientific production and everything comes to heritage institutions only decades after it was first created. Countless organizations acquire contemporary materials or document contemporary practices with the primary aim of preserving them for the future. This is what archival legislation and deposit regulations do as well, outlining paths that materials follow from the moment they are created, to ensure they are kept for posterity. It may seem paradoxical that a television program broadcast tomorrow should be saved in the framework of *heritage* policies unless we understand heritage (also) as “what we wish to pass on to future generations” (Deacon, 2005, p. 7). Preservation is in this view not so much a matter of keeping the past as of projecting what will be valued in the future. This involves judgment and a process of selection by professionals which, as it were, lifts present-day cultural production to a status of “heritage-to-be.”

Because selection on the basis of contents is always subjective, institutions tend to resort to formal criteria, to make the decision process more manageable and transparent. The downside of this solution is the risk that because no judgment of value is involved, anything that meets the formal criteria is saved, and this sometimes leads to obvious anomalies. If any video brought out for circulation in a country needs to be deposited, institutions end up preserving the xth copy of a popular BBC television series just because it has subtitles added in the national language. If every book printed in a country has to be deposited, library shelves fill up with (translated) pulp novels all telling varieties of the same sevenstorylines. This may be regarded as a case of erring on the safe side, but it is legitimate to ask whether we can always afford to do so. Acquiring deposit materials may not be expensive, but cataloging them and preserving them is.

In the digital environment this situation has become even more pronounced. The point at which materials are secured for preservation is moved forward as digital preservation is supposed to take place “throughout the life cycle” and “starting at creation”—which does not mean “when an object has been created” but rather “while it is being created”—or even before. As part of their preservation responsibility, national archives provide guidelines to record-creating agencies because, as mentioned above, digital preservation “begins with the design of reliable systems and proce-
dures which will produce authentic and stable digital objects” (UNESCO, 2003a, Article 5). Metadata defining how digital objects were created and documented in the design and functionality of software applications have become vital for their preservation, which adds yet another layer of preservation work.

Materials on the Web, however, are an amalgam of content and applications. Those responsible for preservation have no insight in nor any control over the way they are created, nor can there be much hope that they will be kept accessible because their structure and functionality can be understood from accompanying documentation and metadata, which is often incomplete or lacking. In the digital world of change and flux there are no discrete entities with a beginning, a middle, and an end that can be defined and classified. There is no point in time when a finished product is created, and the contents of the “object” are not fixed. Consequently, the system in which cultural production is selected for preservation on the basis of formal criteria and judgment of future value is now coming apart at the seams.

**Different Routes**

The route of harvesting complete national domains that heritage institutions are exploring solves the dilemma by doing away with selection and judgment of value entirely—and leaves it to future generations to decide whether they wish to keep what is handed over to them as “heritage.” This approach has often been criticized as mere storage of materials instead of preservation, the more so as many technical and rights issues are as yet unresolved, so that it is unclear whether access can be provided and what this access would amount to. The answer to this objection is that if things are not stored now, there will be nothing left to preserve. Harvesting and storage is in this view a first and indispensable step toward some kind of preservation that cannot, however, be defined at this stage. For the time being, the question of “what we wish to pass on to future generations” is left open.

The other route that has been followed is to concentrate on archiving objects that are essentially digital varieties of paper documents, as has been done for electronic journals. Even these relatively static documents pose serious problems to institutions used to working with things that are tangible and fixed, for they may still exist in different versions and change locations, and when links die, linked content disintegrates. That the majority of Web sites present a mixture of media complicates preservation in a technical sense. These issues are emphasized continually by heritage professionals and they have made efforts to deal with them by developing metadata standards and persistent identifiers. Databases also bear some resemblance to their predecessor the good old card system, and the parallels to the analogue world help to grasp the concept and develop
preservation strategies. In terms of contents, the databases that heritage institutions would be interested in are serious projects that contain a lot of stable, solid data that are not constantly revised. It is therefore conceivable that acceptable preservation is achieved by keeping periodical snapshots, similar to making regular backups. The next step is archiving discrete Web sites of known organizations selected for the quality and relevance of their content. National libraries, archives, and research institutes are now working on this and bring their professional expertise to the processes of selecting, appraising, describing, and maintaining that finds its roots in the analogue world.

This approach is in line with the advice given in the UNESCO Guidelines: “Where necessary, it is usually better for non-comprehensive and non-reliable action to be taken than for no action at all” (National Library of Australia, 2003, p. 21). For institutions the primary goal is to get a grip on the digital universe, conceptually and technically; their efforts are directed at keeping problems manageable and at “taming this flow, channeling it into thematic, geographical, linguistic or formal categories, and organizing this prolific and polymorphous data mine” (Abid, 2005, p. 8).

But against this image of heritage professionals bravely tackling the anarchic mass that is the Internet, others paint a picture of institutions set in their ways whose response fails to do justice to the challenge of the networked environment. In fact, the idea that individual institutions can preserve digital heritage is a misconception; heritage institutions lack the resources, the skills, and the necessary understanding of digital culture. The only effective way to manage digital information and keep it accessible is in the network (Bearman, 2007; Mackenzie Owen, 2007). According to Bearman, we need “to move our efforts from the individual repository level to the systemic level,” and he believes that most of the solutions envisioned for preserving digital heritage “will not succeed because they attempt to solve a systemic problem, with fixes applied institutionally.” The attempt by heritage institutions to channel or organize Web content is the equivalent of dissecting it into isolated sections; the object takes precedence over the process, what is dynamic becomes static, what is distributed becomes contained.

This will do nothing to preserve the new cultural space where users have become participants and create their own, shared environments. Social software enables information consumers to contribute their own knowledge, views, ideas, music, images, and videos to an ever-expanding aggregate, branching off into different directions, linking to other sites, reusing materials made available in other contexts. This participatory culture manifests itself as blogs, wikis, forums, games, and any combination of these. *Wikipedia* is not only a product but also a process created through comments and continuous revisions. The interaction between participants is an essential element of these sites; even music and images
are not posted simply as end products, but as contributions inviting comments, reuse, and links from a community.

Perhaps the most significant consequence of these characteristics is that modern culture is represented by the use of digital materials and the social and cultural processes they invoke, rather than by the materials themselves. Heritage preservation, therefore, implies not just storage and maintenance of digital artifacts, but the capturing of dynamic processes and patterns of use. (Mackenzie Owen, 2007; also see Uricchio, 2007, for a discussion of participatory culture)

The problem here is that preservation of cultural heritage would then become more or less synonymous to documenting human interaction on the Web. Are we simply going to keep everything because it is possible? What has happened to the idea that heritage has some value attached to it? A lot of what is going on in Web forums or blogs resembles conversations over a cup of coffee more than anything else, and to preserve all this as heritage would be casting the net very wide indeed. (It may even be illegal to capture such conversations with a view to keeping them accessible—or unethical.) The objection to Mackenzie Owen’s proposal to “capture the digital fabric of society” from heritage professionals was that this is not what heritage is about. Memory institutions do not preserve cultural processes, or social activity, but documents and artifacts that are valued for what they may tell us about a culture. Mackenzie Owen suggests that for the preservation of the digital fabric of society a new type of organization should be established alongside the existing heritage institutions specializing in preservation of “high” culture. Apart from the fact that this term implies more of an opposition than actually exists—unless one regards quiz shows and free newspapers like Metro as high culture—it is not clear whether what is kept by this new organization should be seen as heritage. Many a historian probably dreams of time travel that would take them back for a couple of days to their favorite historical period for some first-hand observation of what life was really like at the time—but that is exactly what they would be looking at; life, not heritage-to-be. So when does documentation of cultural processes become preservation of heritage?

**Intangible Heritage**

Although the UNESCO charter sees digital preservation as linked to the existing system for managing documentary heritage, the context of other UNESCO programs for culture and heritage should also be taken into account. The General Conference of October 2003 not only adopted the charter on digital heritage, but also the *Convention for the Safeguarding of the Intangible Cultural Heritage*, a document that promises to have much wider implications. The process of ratification by member states has been a rapid one, and the convention entered into force in April 2006;
by the end of August 2006 already sixty-two member states had ratified
the convention. In 2005 the general conference moreover adopted the
Convention on the Protection and Promotion of the Diversity of Cultural Expressions. These two conventions along with the 1972 convention concerning
the Protection of the World Cultural and Natural Heritage for UNESCO
constitute the three pillars of the preservation and promotion of creative
diversity.

Both these recent conventions have been prepared in years of study
and debate, which cannot possibly be summarized here (the “brief his-
tory” of the convention for intangible heritage on the UNESCO Web site
goes back to 1966!), but it is relevant to understand that the general ideas
on culture, heritage, identity, and diversity that have been developed dur-
ing work on these conventions also inform the charter on digital heritage,
which can be regarded as an addendum to these major documents, zoom-
ing in on one particular area. Particularly the discussions on intangible
heritage, have in recent years, seriously influenced the thinking on pres-
ervation and heritage and have dislodged them from their solid base of
materiality. For preservation of intangible heritage does not only concern
the materials that somehow represent or document intangible cultural
expression, but the preservation of this intangible culture itself. As the
convention defines it:

The “intangible cultural heritage” means the practices, representations,
expressions, knowledge, skills—as well as the instruments, objects, ar-
tefacts and cultural spaces associated therewith—that communities,
groups and, in some cases, individuals recognize as part of their cultural
heritage. This intangible cultural heritage, transmitted from genera-
tion to generation, is constantly recreated by communities and groups
in response to their environment, their interaction with nature and
their history, and provides them with a sense of identity and contin-
uit, thus promoting respect for cultural diversity and human creativity.
(UNESCO, 2003b, Article 2)

The preamble to the convention recognizes “the deep-seated interde-
pendence between the intangible cultural heritage and the tangible cul-
tural and natural heritage” (UNESCO, 2003b). In a thought-provoking
article on the relationship between heritage and (intangible) culture, Kir-
shenblatt-Gimblett (2004) calls the distinction between the three types of
heritage “arbitrary”; natural heritage sites often are what they are because
of human interaction, and “tangible heritage, without intangible heri-
tage, is a mere husk or inert matter” (p. 60). Challenging the dichotomy
between intangible heritage as events and tangible heritage as things, she
quotes the existential philosopher Stanley Ėveling who has remarked “A
thing is a slow event” (p. 59). Kirshenblatt-Gimblett qualifies this is as “a
perceptual issue,” determined by how we experience time and change.

How digital culture fits into this picture is only beginning to be dis-
cussed. It has been asserted that when people start using new technology, this will have an impact on cultural practices and may change, for instance, ritual behaviors, or even give rise to new ones. More concretely, it has been proposed to mention cybeculture explicitly in the text of the convention on intangible heritage, as a space where older elements from popular culture are adapted and recreated, as in fantasy games that draw upon folklore and fairytales and construct complete virtual worlds peopled by cyber-versions of characters from traditional stories (Jacobs, 2005a, 2005b). This proposal was not accepted, and one can imagine it was too much of a leap in a discussion that centered on local customs and traditional crafts. However, it is recognized that digital media have an important role in the documentation of intangible heritage, and moreover the characterization of cultural expression as renewable and adaptable in response to a community’s environment leaves the door open for implementations that include digital manifestations. Uricchio (2007) also points to similarities between intangible and the digital cultures:

The rapid circulation of digital texts has also stimulated the growth of cultural hunters and gatherers who cut and mix, collect and reassemble, borrow and repurpose, and who do so as collectives. These practices are not so distant from those evident in pre-industrial and agrarian cultures . . . consider the work of quilters, folk singers and storytellers that might be characterized in precisely the same terms.

But for him there is an important difference too, in that cultural manifestations on the Web, unlike folk songs or dances, are also embodied as text, image, and sound that can be captured.

If the distinction between the different types of heritage is arbitrary, the question whether cultural activity on the Web is intangible or not can be left undecided, but tracing similarities and differences may still be instructive to gain a better understanding of digital culture. The tendency to project concepts and strategies from the very tangible paper environment onto the sprawling digital universe, in an effort to classify and categorize it, can be counteracted by a view from the intangible side that opens new perspectives. Culture as process instead of product, performance, and enactment rather than artifacts, the role of communities or groups as bearers of culture; these aspects of the intangible debate all have a bearing on digital culture. The definition of intangible heritage as both transmitted and recreated by communities and groups, has led to considerable discussion on the relationship between cultural practices and preservation of heritage: Who assigns value to cultural practices of a community that “promotes” it to heritage worth safeguarding? To what extent does such a promotion in itself change cultural practices? Isn’t there a risk that states appropriate or “revitalize” cultural manifestations as showcases of a rich national heritage, instead of sustaining the system and communities in
which they originated? Can a cultural process or an event that is continually recreated actually be safeguarded without “fossilizing” it? As Kirshenblatt-Gimblett (2004) puts it: “Change is intrinsic to culture, and measures intended to preserve, conserve, safeguard, and sustain particular cultural practices are caught between freezing the practice and addressing the inherently processual nature of culture” (pp. 58–59).

The debate on these issues will no doubt intensify now that the convention has reached the stage of implementation and countries are expected to draw up inventories of their intangible heritage. One of the most controversial points is the selection of cultural expressions that constitute a community’s heritage. Some favor selecting “masterpieces” of exceptional importance that should be safeguarded; on the other end of the scale there are those who reject singling out individual instances as more important than others and would prefer to document representative examples of a category of cultural practices that may take several forms. The exploration of the field of intangible heritage that this will involve is relevant for our view of heritage as a whole as it will encourage thinking across national boundaries and revisiting the process by which value is attached to cultural forms. “Also, it raises the question of whether our understanding of “heritage” should be restricted to what is old, traditional, indigenous, tied to ethnic identities, and so on” (Deacon, 2004, p. 11). New ways will have to be developed to deal with the intangible heritage, and these mechanisms may also apply to the management of tangible heritage, which would be particularly relevant for an emerging field like digital preservation.

**Political Context**

UNESCO takes digital heritage seriously, but probably not because they are particularly interested in teenagers in the wealthy Western world romping about as cyborgs with identities taken from *The Lord of the Rings*. The mission of UNESCO is to make the world a better place by giving people access to information and education and the chance to live their own culture in their own language. Education, science, culture, and communication for UNESCO are the means to a highly ambitious goal: “to build peace in the minds of men,” as it is phrased on their Web site. The human rights and fundamental freedoms as defined in the charter of the United Nations are the basis for the work of UNESCO, which is directed at governments that should create opportunities for their citizens to live full and rewarding lives. Culture is one of the ways to promote collaboration among the 191 (as of September 2006) member states and build mutual respect and understanding between people.

Digital media, and particularly the Internet, are extremely relevant for many aspects of UNESCO’s work because of their possibilities for furthering free exchange of ideas, access to information, and freedom of ex-
pression. An initiative like the Community Multimedia Centres (CMCs), which offers local communities in poor countries access to computers and communication media in combination with local radio, is described as “a gateway to active membership of the global knowledge society,” which “empowers the community by giving a strong public voice to the voiceless, and thus encouraging greater accountability in public affairs” (UNESCO CMC, n.d. a). Bringing information and educational materials to those who have limited access to books, libraries, television, newspapers, archives, and museums serves higher goals of development, equal opportunities, and good government. The Internet has become a key component of UNESCO’s cultural programs not only for its potential to distribute information widely and cheaply, but because it can do so across borders to encourage participation and share in the creation of communities, instead of being a one-way channel through which information is received. The “digital divide” is high on the list of UNESCO priorities as an obstacle to development—development not as something imported into countries, but as an activity of people:

New information and communication technologies are not a solution or a goal in themselves. They offer the means for communities to identify and implement their own solutions leading to their own goals in the field of human, social, cultural and economic development. (UNESCO CMC, n.d. b)

Governments are expected to support development, for example, by providing access to public information; the fact that many governments have adopted policies to computerize public services is characterized in a document on digital heritage as “one of the effects of modernity, perhaps, but more than that, one detects in these policies a concern for improving relations with citizens” (Abid, 2005). The observation that governments are eager to use digital media from a desire to be part of the modern world is echoed as a note of warning in the text of the charter where it says “Digital evolution has been too rapid and costly for governments and institutions to develop timely and informed preservation strategies” (UNESCO, 2003a, Article 3). The message here is that if governments want to go digital (and hence come to depend on digital media for their own administrative processes), they will have to invest in the creation of a stable infrastructure and pay serious attention to digital preservation. If they fail to do so, the introduction of digital media will prove to be no more than a veneer of modernity while underneath, valuable data and knowledge will seep away through the cracks.

The centrality of a sustainable information infrastructure for development issues explains why UNESCO’s efforts at building a support base for the charter and its promotion of the guidelines for digital preservation have been focused on emerging economies and the developing world,
where the Internet can make a real difference in people. Often this ties in
with a strong ambition to use digitization for promoting and preserving
the national heritage in an effort to maintain cultural identity in the face
of globalization. The meetings UNESCO organizes as follow-up activities
to the charter prove to be focal points when, depending on needs and
developments in the region itself, a variety of topics are discussed relating
to preservation and access. The workshops in the Caribbean (2005)
devoted special attention to preservation of audiovisual heritage; these
meetings and the recent one in Ethiopia (August 2006) provided plat-
forms in which to develop regional action plans, strengthen cooperation,
and work on capacity building. In this way the charter acts as a catalyst for
activities fanning out over a very broad field.

When seen in this light, the adoption of the charter gains much more
weight than a discussion in the context of (Western) heritage policies
might suggest. It has a strong political dimension that is easily overlooked
from the comfort of a national heritage institution in northwest Europe.
In fact, the political dimension of preservation itself is usually largely ne-
eglected in a debate characterized by an emphasis on technical solutions
and forays into cultural activity as an innocent pastime. Yet, the relation
of the Internet to political realities is immensely complex and deserves
further disentangling before strategies for preservation of digital heritage
are fully implemented. At this stage of rapid development when many
different groups are applying the technology for a range of activities, it is
opportune to hold preservation policies against the light for their prac-
tical implications in the new, global environment. In the debate on in-
tangible heritage, attention has been drawn to possible conflicts between
safeguarding of cultural practices and human rights issues. For example,
what about customs that are clearly oppressive for women, cruel to chil-
dren, or discriminatory? The text of the convention states: “consideration
will be given solely to such intangible cultural heritage as is compatible
with existing international human rights instruments, as well as with the
requirements of mutual respect among communities, groups and individ-
uals, and of sustainable development” (UNESCO, 2003b, Article 2). The
first problem here is that in real-life situations the same principles are not
always given the same precedence; what one group would see as freedom
of expression, another experiences as disrespect for religious beliefs. One
could also take the position that irrespective of ethical considerations any
cultural activity is worth documenting and studying (but not protecting)
because it is part of our society; deleting it from the record would be a dis-
tortion of historical fact. What would then be preserved is the documenta-
tion of an abandoned tradition, with different (negative) values attached
to it. But would this still qualify as preservation of intangible heritage in
some way?

For libraries and archives this situation is somewhat easier to handle as
the heritage in their care is in documentary form to start with and can be preserved without recreation or enactment. When it concerns offensive or seditious materials, libraries and archives usually have procedures to limit access. They tend not to publish sensitive materials on the Web, especially as they can be much more easily abused when they are out in the open. To historical materials on the Web that present opinions that might give offense, commentaries are sometimes added to explain that they should be interpreted in their historical context. All this is manageable because it concerns collections within institutions that have been described and whose content is, in principle, known. If institutions use an inclusive strategy for archiving Web content, however, aiming to capture cultural manifestations in their entirety or harvesting complete national domains, this will bring a lot of material into the care of institutions of which the content is either not known or of a doubtful nature. From the academic point of view, all this is documentation of our society that is openly available on the Web and constitutes an invaluable resource for research. But it raises the question whether institutes studying, for instance, political or religious extremism and store materials from blogs and forums on their own servers (which they would prefer to, as these sites tend to come and go rapidly) can legally do so. And if they can, how is this material to be kept for the future? Does making it accessible involve risks for the right to privacy? Are we going to treat it as “heritage”?

It may not be too difficult to formulate a policy for such extreme cases, in which publishing the content may have been illegal. But there are numerous Web sites that have a function for creating cultural or national identity that can not so easily be classified. Numerous dispersed nations, exiles, minority groups, or emigrants use the Internet to build virtual communities, often across physical distances, to establish or strengthen their shared background as defined by language, religious beliefs, history, or ethnicity. Many of these forums include cultural content, because a lot of discussion is devoted to language issues and to historical events. Depending on the contributors and the level of interaction, what is shared may be informative, or highly biased and unreliable. The shared “virtual identity” that is constructed may just as well represent the real values of a real community or be far removed from reality. There may be honest debate among a representative group, or the process may be heavily influenced by the input of only a handful of people—which obviously carries risks of manipulation and misrepresentation, and ultimately division and conflict. That makes it quite hard to assess the relationship between the virtual world and the political reality that lies behind it. How do we understand such material: is it documentation, and of what exactly? In an e-seminar of anthropologists on the building of national identity in cyberspace one of the participants, Daniel Miller, observes that “it is much harder to assess the significance of a web presence than we have admit-
ted in the past” (European Association of Social Anthropologists Media Anthropology Network, 2006, p. 7). In original research in Trinidad he found “there were Indian nationalists who had a major presence on line which basically signified only that no one would take them at all seriously in any other media” (p. 7).

It is relevant to consider what would happen if these diverse manifestations of cultural identity would be preserved as cultural content or social interaction. Often this is material that cannot be properly evaluated without a good knowledge of the real world in which it originated. Should all this be indiscriminately and automatically collected and placed in the care of heritage institutions, leaving it to posterity to construct their own story from a wealth of documentation? To what extent does keeping materials as “heritage” constitute an appreciation or legitimatization of their contents? Should they be cataloged, described, or classified, or can the Web be expected to sort itself out as it were because everything will be preserved—the discussions, publications, dissenting views, analyses by researchers—with powerful search engines bringing sources and secondary materials together (which are now often published in academic journals with restricted access). Would distributed or networked storage be the answer, with a special role for researchers to provide access within a context based on their study of the real world? Or is this superfluous as the context is already present within the whole of the preserved documentary universe accessible on the network?

Conclusion

Everyone may agree that we need to preserve our digital heritage, but that does not mean we agree on what we need to preserve. The UNESCO Charter on the Preservation of the Digital Heritage speaks of digital resources of “lasting value and significance” (UNESCO, 2003a, Article 1), but in the Internet environment, that leaves a lot to be defined. Just as the digital world is rapidly evolving, so the strategies for preserving what we consider heritage will have to be revised in a continuing process of adapting established practices to new ideas of what future generations may want to know about us. The digital revolution has created an alternative world that theoretically could be preserved in its entirety, but the question is: What purpose would it serve to hand over the disordered and undifferentiated record of all our virtual activities? Harvesting the fields yields useful crops only if these are cultivated fields, and the “world wild web” is hardly that. Tending the garden may be more akin to preserving our heritage, provided we let some wild flowers roam.

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NOTES
1. For instance, in Denmark the law on legal deposit was changed in 1997 to include all published works “regardless of medium” (Henriksen, 2001). In the revision of South African deposit law in 1997 generic terms like document and medium were introduced to extend legislation to audiovisual, electronic, and broadcast materials (Letshela & Lor, 2002).
3. The IIPC is a consortium of national libraries and the Internet Archive with the mission “to acquire, preserve and make accessible knowledge and information from the Internet for future generations everywhere, promoting global exchange and international relations” (IIPC, n.d.). See http://netpreserve.org/.

REFERENCES


Since 1995, Yola de Lusenet has been working as executive secretary of the European Commission on Preservation and Access (ECPA), an independent foundation acting as a European platform for the promotion of preservation and access of the documentary heritage. Yola de Lusenet has co-organized numerous meetings on preservation-related issues and published papers on preservation management, reformatting, digital preservation, photographic collections, and audiovisual collections. She was the author of a discussion paper on digital heritage for UNESCO. From 1999–2003 she was the coordinator of the European Union-funded project Safeguarding European Photographic Images for Access (SEPIA), at present she is coordinator of TAPE (Training for Audiovisual Preservation in Europe), also funded by the EU. She is an ex-officio member of the Memory of the World Sub-Committee on Technology, a member of the audiovisual section of the Dutch archives organization DIVA, and chair of the Dutch Society for History and Computing (VGI).
Abstract
This article examines the changing landscape of moving image archiving in the wake of recent developments in online video sharing services such as YouTube and Google Video. The most crucial change to moving image archives may not be in regard to the collections themselves, but rather the social order that sustains cultural institutions in their role as the creators and sustainers of objectified cultural capital. In the future, moving image stewardship may no longer be the exclusive province of institutions such as archives and libraries, and may soon be accomplished in part through the work of other interested individuals and organizations as they contribute to and define collections. The technologies being built and tested in the current Internet environment offer a new model for the reimagined moving image archive, which foregrounds the user in the process of creating the archive and strongly encourages the appropriation of moving images for new works. This new archetype, which in theory functions on democratic principles, considers moving images—along with most other types of cultural heritage material—to be building blocks of creative acts or public speech acts. One might argue that the latter represents a new model for creating an archive; this new democratic archive documents and facilitates social discourse.

Introduction
The quickly accelerating integration of moving images on the Web in the last year brings us ever closer to the goal of building digital collections that are rich in multimedia, thus adding to the collections of documents and images that are already well-established. Video clips have become
a central feature of many Web sites, which are taking advantage of new technologies that make it easier to stream high-quality full-motion video. Refined streaming capabilities, the growth in the number of households with broadband connections, and the strong interest by users to create and share content have fueled the growth of Internet video sharing sites such as YouTube and GoogleVideo.¹

These new developments suggest fascinating implications for the cultural heritage community involved in the work of moving image preservation and access. Finally, cultural institutions will be able to bring the riches of moving image archives to the masses, and to connect their collections with other moving image material. Through various methods, such as union catalogs or metasearch techniques, links can be made with not only those materials found within institutional collections, but also the material available via the burgeoning video sharing sites. The meta-archive of moving images seems to be finally within our reach.²

This article focuses on an interesting problem that emerges in the wake of embracing and connecting with these new resources. One must consider the implications of this blurring of the lines between the traditional archive and the new Internet moving image collections that are emerging. While the established institutions and organizations have established processes and practices for the management of collections, and have the tacit authority to make decisions about such things as acquisition, appraisal, and preservation, the newly emerging collections growing exponentially have few such structures in place to shape the direction of the collection. One might suggest that the latter represents a new model for creating an archive; this new democratic archive documents and facilitates social discourse by encouraging users to submit their own video creations to be shared by others in the community, to organize material by “tagging” them with keywords and linking them to related clips, to appropriate material from the archive through downloads and links to material in the archive placed on other sites, and last, to create additional documentation of clips through the addition of comments.

This paper attempts to explore the ramifications of the distinction between established cultural institutions and the newer forms of digital moving image collections now emerging. For institutions, does the appearance of these new archives force the old guard to reexamine and redefine themselves? If cultural institutions no longer muster the same authority to curate collections—and by curate I mean shape them through the activities of acquisition, appraisal, description, deaccessioning, and all the other processes in which such institutions engage—what is their role within society and in regard to cultural heritage? Are we now seeing the ascendancy of a new order, one in which users and creators take a more proactive approach to shaping the content and structures of moving image collections? More pragmatically, does the average user understand or
even care about the difference between the “archive” as such, and other formal collections?

MOVING IMAGE ARCHIVES AND THE SOCIAL ORDER

In the digital age, moving image preservation continues to evolve beyond its origins in the care of analog motion picture and video media. As more and more moving images are created, distributed, and maintained in digital form, moving image archives will no longer match the stereotypical image many of us have of stacks of rusty cans and boxes filled with quickly decomposing films and videos in need of salvation. Instead, the moving image archivist of the twenty-first century will face the even greater challenge of managing enormous collections of digital files, containing dozens of formats (most of them obsolete) and residing in networks maintained far from the archivist’s actual location. While many of today’s archivists are preoccupied with the preservation and restoration of individual titles (somewhat like conservators treating works of art or individual volumes), tomorrow’s archivists will be much more concerned with the management of component parts of the work that may in fact be reused in other works (Besser, 2001).

Given the changes that moving image archivists will face in their daily work, it is not surprising that many in the profession are preoccupied with the technical challenges accompanying the transition from analog to digital. Few archivists have given similar consideration to the social implications of this evolution. As digital video formats are now well on their way to becoming the primary medium for moving image content, the information disciplines are just beginning to assess the impact of these digital media on the primary functions of cultural heritage institutions. Initially, we are most likely to recognize that digital media improves the accessibility of cultural material; the potential for democratization of access, and through that democratization process, facilitating the appropriation of cultural material for consumption and creation of new works. All of these trends tend to occupy the writers and thinkers about digital media.

We also extol the benefits of digital media for facilitating the development of social networks. Virtual communities build around common points of interest, both for work and leisure activities, using tools ranging from electronic mail and newsgroups to weblogs to virtual gaming environments. In some ways, it is inevitable that social networks should extend into the work of cultural institutions, as they have infiltrated other institutions (such as education and government).

Yet, when we consider digital media and its surrounding culture for its potential to provide new methods for preserving and extending the longevity of our cultural record, the problems surrounding digital preservation seem to overwhelm the potential benefits. While digital media holds the promise of comparatively unlimited storage potential and ease
of making copies of material, the issues of format obsolescence, authenticity, integrity, scalability, and economic incentives for providing preservation services weigh down the community in complex challenges (Harvey, 2005). While these problems, faced by cultural institutions, corporations, governments, and other organizations demand much attention and resources as we search for solutions, individuals and families also share these concerns about preserving material (Bergeron, 2002). The solutions must be scalable both upwards to accommodate the largest, most complex collections, and downwards to collections of individuals and smaller repositories.

Moving image archivists fully engaged in the process of maintaining digital objects will in fact be reinventing themselves, relinquishing one archetype—that is, custodian of physical objects—for another. While it is true that they will continue to fulfill their custodial obligations as required of their positions—whether those objects be legacy material or digital material, many actions, such as acquisition and preservation of materials, may become less visible and require less contact with creators and users as these processes are automated and regulated. As institutionally-based collections intermingle with user-built collections, those stewardship activities that defined the identities of archives, libraries, and museums may no longer be seen as the unique realm of cultural institutions. Thus, the curatorial or archival authority with which cultural heritage institutions are invested may diminish to the point where society may question the need for such entities to perform such work.

The above statement may seem a radical suggestion, particularly as user-built moving image collections are still in their infancy and do not really threaten the primacy of established cultural institutions as of yet. It is worthwhile, however, to examine the nature of moving image archives and the phenomenon of user-built archives more closely. Does the new model of the digital moving image archive modify the essential role and functions of the archive, and therefore of moving image archivists themselves? That question lies at the heart of this discussion.

**Cultural Heritage Institutions and the Stewardship of Moving Images**

As articulated previously, the most crucial change to moving image archives will not necessarily be in regard to the collections themselves, but rather to the social order that sustains cultural institutions. Moving image stewardship may no longer be the exclusive province of institutions such as archives and libraries, and may soon be accomplished in large part through the work of other interested individuals and organizations. Creators, whether they are individuals, organizations, or corporations, are bound to become more directly involved in heritage activities as they contribute material to networks and create their own archives.³
In our current worldview, society relies largely upon cultural heritage institutions to select which material is most worthy of expending limited resources on its care. In the new model being considered, selection for accessioning becomes less relevant as collections of significance may not ever officially enter into an institution’s care in the first place; rather, selection of which collections to link to becomes more important. The individual creators (or the network where the content resides) may be the sole possessors of moving image material, and transfer of material to institutional custody may not occur. The actions of creators or service providers to perpetuate or destroy material of value (either consciously or through benign neglect) will determine the shape and scope of cultural heritage in the decades to come.

In the distributed environment of the Internet, preservation efforts may be diffuse and disjointed, reliant upon a multitude of individuals and organizations that may not be coordinated with one another. Can preservation exist in an environment where the responsibility for preservation is distributed among many people and organizations rather than being the purview of a select number of institutions? We have not yet built an infrastructure or mentality of preservation among creators, thus preservation as the field currently conceives it would be quite difficult.

**Archival Powers**

It is worthwhile to examine briefly the traditional role of cultural institutions and how society confers upon them the power to preserve and provide access to cultural heritage. By understanding their powers, we may be better able to analyze how stewardship in the digital domain may be transformed.

The Web offers the opportunity for individuals with digital moving image material to build and maintain their own collections, and share them with whomever they choose. These activities, traditionally the purview of cultural institutions (archives, museums, and libraries), are no longer the exclusive domain of a few recognized organizations. The advent of moving images on the Web with the concurrent development of video-sharing services, offer a new avenue for storing and managing such material, one that bypasses the traditional route of preserving such material within archives, libraries, museums, and other types of heritage institutions.

The culture heritage profession, of which moving image archiving forms a part, is in fact reliant upon a social contract in which institutions are created and sustained to perform particular types of cultural work, that is, the identification, collection, description, and sustenance of culturally significant objects. One might assert that such institutions have been imbued with the authority to control this work, and that many of their practices are actually designed to keep other “unqualified” individuals and institutions from performing the same work (Crimp, 1993;
Douglas, 1986). The degree of control over certain types of work, such as preservation or distribution of the work, may be tempered by other variables such as its copyright status (in which case, the authority of the owner trumps that of the cultural institution). Preservation is a particularly important function of the cultural heritage institution, as it is where the authority of the curator or archivist is invoked to determine the value of an object or collection and allocate resources toward its care based on that valuation. The concept of value also bears further investigation.

**Preservation and Value**

One may summarize the central tenet of preservation most simply in the following statement: We preserve what is of value. Yet, who determines the value of cultural objects? And what do we mean when we use the term “value”? While the latter question is certainly broader than could be addressed adequately here, I would like to offer the definition of value suggested by Randall Mason, who recommends that the cultural heritage community use the term in the following sense: “in reference to the qualities and characteristics seen in things, in particular the positive characteristics (actual and potential)” (Mason, 2002, p. 7). This definition assumes that value is extrinsic to the cultural object, being produced solely “out of the interaction of an artifact and its contexts; they don’t emanate from the artifact itself” (Mason, 2002, p. 8). In simplest terms, what this definition establishes is that value is entirely a construct, and one must “buy into” a particular system of valuation before finding something to be of value.

Returning to the first question, who determines the value of a cultural object? With the above definition, a seemingly sensible derivation would be that anybody or any community could designate something to be of value. If one accepts this proposition, it is then possible that someone could assign a value to an object that may be in direct opposition to the value imposed by another individual or group. The concept of extrinsic value allows for multiple definitions of value for a cultural object; cultural heritage is multivalent—any number of values can be ascribed to an object simultaneously.

Yet, it is often the case that one type of value is foregrounded, on the basis of the judgment of one particular set of experts or authorities. Thus, while an object might have spiritual value in one community, its aesthetic, economic, or scientific value might override the consideration of its spiritual value. Often, it is stakeholders with power that establish value, differentiating among a multitude of objects to separate the permanent from the ephemeral according to their definitions. Usually, these stakeholders function as part of a larger institution upon which has been granted the authority to establish value. As Pearce notes, “In the modern state the operation of power is linked with a range of disciplinary and surveillance
procedures which draw on knowledge in all its attributes, including the
development of the necessary institutions and technologies. We see from
this that not merely religion or moral codes but also scientific knowledge,
the operation of human reason, and *all value judgments are to be seen simply
as strategies of power, as ways of not perceiving reality, but of creating social rela-
tionships* [italics added]” (Pearce, 1992, p. 231). In many ways, cultural in-
stitutions are articulations of particular worldviews of certain segments of
society. Communities, particularly those in the developed world, rely upon
trusted cultural institutions to perform the task of cultural heritage valua-
tion for us. These institutions are often the cultural entities with which we
are familiar, for example, libraries, archives, and museums. They also may
be other types of forces such as the market, which determines economic
value of cultural objects, or religious institutions, which designate certain
objects with sacred value.

**Moving Images As Cultural Capital**

When discussing issues surrounding valuation, it is particularly helpful
to consider the related concept of capital. One might assert that cultural
heritage is a form of capital that can be accumulated, shared, transferred,
and otherwise manipulated by both individuals and institutions, and that
the control of significant amounts of cultural capital confers a certain
power to the possessor. Sociologist Pierre Bourdieu first articulated the
concept of cultural capital in *Cultural Reproduction and Social Reproduction*
(1973), and later refined the concept in his essay “The Forms of Capital”
(1986). In the latter work, Bourdieu defines three types of cultural capi-
tal: embodied, institutionalized, and objectified. Individuals may embody
cultural capital through development of what Bourdieu calls “long-lasting
dispositions of the mind and body,” meaning that through the process of
culturation, individuals in a particular group (often a socioeconomic
class) acquire and sustain a body of cultural knowledge and particular
preferences in art, literature, and other aspects of culture. A person’s par-
ticular embodied cultural capital is known as his or her *habitus*.

While embodied cultural capital is often transmitted within the fam-
ily environment, institutionalized capital is transmitted through schools,
universities, and other educating bodies. Persons who possess institu-
tionalized cultural capital have been “academically sanctioned by legally guar-
anteed qualifications”; that is, they have an earned degree or certification
that grants them a particular status, and separates them from practitio-
ners who do not have the qualifications. Thus, society has established a
method to separate the physicians from the quacks, and the professors
from the ardent amateurs. One may also apply this concept of institu-
tionalized cultural capital to the institutions themselves, as society tends to
recognize those cultural institutions that have affiliations with accrediting
bodies. Examples of these bodies in the cultural heritage area might include the American Association of Museums or the International Federation of Film Archives.

Cultural institutions invest in objectified cultural capital, the third type of cultural capital that Bourdieu designated. It encompasses collections of cultural goods, including all types of art, artifacts, books, and archives, all of which contain the traces or realizations of human endeavor. Moving images reside within this realm of objectified cultural capital (Bourdieu, 1986). According to Bourdieu, the method by which society recognizes such objects as having value as works of art, that is, as having symbolic value, includes not only recognition of the artists themselves, but also those who collect, analyze, and otherwise perform actions upon those collections:

Given that works of art exist as symbolic objects only if they are known and recognized, that is, socially instituted as works of art and received by spectators capable of knowing and recognizing them as such, the sociology of art and literature has to take as its object not only the material production but also the symbolic production of the work, i.e., the production of the value of the work, or which amounts to the same thing, of belief in the value of the work. It therefore has to consider as contributing to production not only the direct producers of the work in its materiality (artist, writer, etc.) but also the producers of the meaning and value of the work—critics, publishers, gallery directors and the whole set of agents whose combined efforts produce consumers capable of knowing and recognizing the work of art as such. (Bourdieu, 1993)

The key actors in this valuation process are the “arbiters of taste”: people and institutions selecting, preserving, and facilitating access to works contribute directly to the creation of value within the work. These players, who populate a sphere that Bourdieu refers to as the “field of cultural production,” organize the process of valuation and determine who shall have influence within the field and who will not. Our cultural institutions are created primarily to reflect the dominant opinions of the “tastemakers”; while it is true that value is a social construct in flux and capable of redefinition at any time, the stability of cultural institutions relies upon the difficulty in dislodging the dominant paradigm. Often, it requires external forces such as economic crisis or political regime change to “shock the system” and effect a change in the status quo. An example of this sort of complete paradigm shift would be the transformation of the cultural landscape in Russia after the revolution brought the Soviets to power. After such a transition, cultural institutions rebound to reflect the new paradigm, or new institutions are established to take the place of the old. The function of the institution remains the same: to control the valuation of cultural objects and their appropriation by individuals into embodied cultural capital.
An interesting question to consider in respect to the topic at hand (moving images and cultural capital): what would happen if cultural institutions were bypassed, allowing others the opportunity to identify, manage, and preserve cultural objects of value without having to go through an intermediary? Would we make cultural institutions less relevant if their authority as intermediaries in the heritage endeavor was circumvented?

The idea of encouraging individuals and communities to assert their own power to control heritage objects is not necessarily a new one. Many countries have reexamined the formerly standard practices whereby museums appropriated and assimilated objects into their collections from other cultural groups (e.g., Native Americans, indigenous Australians). As museums and other cultural institutions have come to recognize the alternate values of these objects for these communities, their policy has increasingly been to return such material to its rightful owners. The native cultures were recognized for the first time as being significant stakeholders in the valuation process. While the objects were recognized as potentially having significant historical, scientific, or aesthetic value, their value within the community of creators and users was given primacy.

The notion of multivalent cultural heritage, leaving heritage open to infinite manners of interpretation, has been explored further by others such as Rick Prelinger. Prelinger began an intriguing project in 2000 that aims to encourage individuals to consider the value of the landscapes in which they live and work. He and his wife, Megan Shaw Prelinger, drop coins at selected sites that are imprinted with the following sayings: “Landscape is our memory; A map of hidden histories; value me as you please.” The sites are chosen for a variety of reasons, however, the goal is to “recognize and mark places that we believe deserve our attention and thought.” The concept is simple and straightforward—we as individuals and communities shape landscapes, and assign value according to our own value system; hence, the coin reads “value me as you please” rather than telling us what value system to use. Further elaborating on this concept, Prelinger posits that

We are makers of the landscape around us, and the landscape we inhabit influences the shape of our lives and our view of ourselves. We ask those who find a coin to value it in their own way, and at the same time consider how the place where they found it has been valued by others. Are land and landscape ultimately properties, commodities to be bought and sold? Or, in the final analysis, do they belong to all of us? How does an ordinary, everyday landscape like a highway or an abandoned industrial tract compare in value to a venerated historical site or a pleasant suburban neighborhood? And who is it, anyway, that [sic] decides the value of the money we carry in our pockets and purses? (Prelinger, 2006, Description of Project section, para. 5)

This spirit of encouraging individuals to refute dominant value paradigms finds its articulation on the Web through do-it-yourself ventures
like Wikipedia and other user-generated content sites. These new developments offer amateurs the opportunity to challenge the dominance of experts and seems to be gaining traction as authoritative sources in certain fields (Read, 2006). In the cultural heritage arena, similar activities and projects vie with cultural heritage institutions for the power to define and control cultural capital.

**NEW MODELS OF MOVING IMAGE ARCHIVING IN THE DIGITAL AGE**

The concept of cultural capital becomes somewhat problematic when applied to moving images. Primarily seen as a medium of popular entertainment, our ability to recognize moving images as a type of cultural capital is often overwhelmed by the commercial nature of much of the material; as with many other media dominated by popular genres, its economic value often overshadows other types of value. Until fairly recently, it was not even considered under the rubric of “cultural heritage,” particularly in the United States. In a sense, this lack of recognition for moving images galvanized and drove the film preservation movement. The raison d’être of moving image archives and archivists has been predicated on the idea that moving images are often unloved and unprotected cultural expressions, doomed to oblivion save for the efforts of a small, yet growing band of enthusiasts who step in at the final hour to save them (i.e., from deterioration, destruction, or even just neglect). These efforts have largely been successful, in that a number of moving image archives have been established and worked to gain recognition for the value of audiovisual heritage. Through their collecting activities, these institutions have made great strides preserving significant objects of moving image heritage (i.e., cultural capital).

Despite this progress made in establishing themselves as cultural institutions, moving image archives now face the same challenges as other institutions brought by creators and users building their own collections of material. What happens if moving images no longer primarily exist as objectified cultural capital held by institutions but as something else entirely? What if the individual creators and users became the primary arbiters of value and created their own structures and systems to store, preserve, and access moving images?

The technologies being built and tested in the current Internet environment offer a new model for the reimagined moving image archive, which foregrounds the user in the process of creating the archive and strongly encourages the appropriation of moving images for new works. This new archetype, which in theory functions on democratic principles, considers moving images (along with most other types of cultural heritage material) to be building blocks of creative acts or public speech acts. A digital archive in the democratic mold encourages the deposit and use of
any and all material that belongs to the public, or which may be seen as being key to an understanding of the society as a whole. While this archive strives to work within the current framework of intellectual property law (i.e., it will not knowingly distribute material currently under copyright), civil liberties such as freedom of speech and expression are cornerstones to its approach, and thus it will foster open access to cultural heritage.

A prime example of this model of digital archiving manifests itself in the Internet Archive; in the words of founder Brewster Kahle, “Do you know what’s carved above the Carnegie Library in Pittsburgh?—‘FREE TO THE PEOPLE’—what a goal! I can believe in this! At the Internet Archive, we think of our mission as universal access to all knowledge” (Ben-son, 2005). The Internet Archive, and the Open Content Alliance—the larger entity that the Internet Archive helped foster—typify the democratic digital archive. The democratic digital archive encourages users who donate material to the site to use the Creative Commons license, which gives others varying degrees of freedom to appropriate material in the creation of new works as long as the original creator retains attribution to the source material.

Democratic digital archives can feature collections digitized and donated as a corpus by organizations and individuals as well as individual works uploaded piecemeal by users. Some sites, such as YouTube, focus almost exclusively on the latter. YouTube describes itself as “a place for people to engage in new ways with video by sharing, commenting on, and viewing videos” (YouTube, n.d.). Other sites that offer similar services include Google Video, Metacafe, and Veoh. These sites function in such a way that they become what could be called a “social mirror” of current events and concerns in daily life, where users function as both users and creators. They are outgrowths of other social media such as social networking sites, weblogs, and podcasts. The primary user base has thus far been teenagers and young adults (ages 18–24), however, this audience appears to be broadening as broadcast and cable networks, corporations, government agencies, and political action committees have discovered the power of this new communication outlet.

Social mirror archives have generated a significant amount of attention in the last two years for two reasons; first, they are designed to encourage the deposit of content and appropriation of that content among users of the site. A key to YouTube’s success has been its technology that enables users to embed links to video content on other sites, allowing them to play YouTube content in their own blogs. Second, users have regularly uploaded material to the site that is under copyright, such as clips from DVDs and recently broadcast television shows. The popularity of YouTube has grown so much in its first year of existence that by late summer of 2006, there were approximately six million videos archived on the site, and one hundred million videos were being viewed every day (McGrath, 2006).
While YouTube and other video-sharing sites preclude users from uploading work for which they do not own the rights, as per its user agreement, users have regularly done so anyway. Although several corporations, most notably the television networks NBC-Universal, ABC, and CBS have complained about such copyright infringements, few companies appear to want to pursue litigation. Instead, most companies have recognized the power of these sites for promoting their product and seek to enter partnerships with the sites. YouTube and NBC-Universal entered into a partnership in which YouTube hosted videos promoting the network’s 2006 fall slate of television programming (Goo, 2006).

With the latest breed of democratic digital archives, the emphasis appears to be on creation of the archive itself by user-creators. Curatorial direction is often minimal or nonexistent. Members of the YouTube community provide their own curatorial commentary by making posts to discussion boards linked to the videos. While videos are often simply diaries of creators’ lives, many YouTube users take copyrighted material and reedit it into new works.

Although the emphasis has often been on the humorous, quirky, or simply weird, captured on low-tech webcams, camera phones, or home video cameras, political commentary often makes an appearance in the archive. Comedian Stephen Colbert’s scathing denouncement, couched in satirical rhetoric, of President George W. Bush, his Republican administration, and the media at the 2006 White House Correspondents’ Association dinner appeared briefly on YouTube before being removed at the request of C-SPAN, the copyright holder. Other politically-tinged clips that have circulated on YouTube include former President Bill Clinton’s attack on Fox News while being interviewed by Chris Wallace on the cable network, and the amateur footage of Senator George Allen at a campaign rally shot by the employee of Allen’s opponent (James H. Webb), who was present to film the event; Allen used the racial epithet “macaca” to refer to the campaign worker, S. R. Sidarth, who is of Indian descent.

The recent acquisition of YouTube by Google indicates the power of this new model for moving images collections; clearly the latter saw the former as a significant competitor to its own service, particularly as YouTube began to branch out from its initial user base to seek partnerships with corporations seeking to promote content online. Unfortunately, the innovative, free-wheeling character of YouTube had begun to be diluted as the service struck deals with broadcast networks, movie studios, and music companies to establish separate “channels” to push certain film, television, and music video content at users. The need to “pay the rent” meant that these sorts of partnerships were inevitable. Unfortunately, these partnerships also allow content owners to patrol the YouTube site for potential copyright infringement, and more quickly remove those videos posted illegally (Goo, 2006). More and more, content is being manip-
ulated by YouTube in the way in which the site is organized and through videos featured on its home page; users have little to no control over these aspects of the service.

Ultimately, the idea of the self-generated democratic archive founders on the shoals of incommensurability with current copyright law and the need for such a service to be sustainable over the long term. Would such a model work if subsidized by the government or other noncommercial entities? The Internet Archive is one example of a non-profit entity that seeks to encourage user-built collections. They do not partner with corporate content owners. They also attempt to provide an indication of user-assigned value through the tracking of something called “batting averages,” which they define as the percentage of people who download a particular clip after having viewed details about it. Their collections staff do perform some curatorial work through the featuring of certain moving images on their “What’s New?” weblog, spotlights, and staff picks, however, these features of the Archive seem more in the spirit of community-building rather than pushing or selling particular clips as commodities. The balance is somewhat different, as the content of the Archive is not simply built by user-creators but also consists of previously existing collections that have been digitized. In the wake of the YouTube phenomenon, it will be interesting to see if the Archive foregrounds user-generated content even more than it has already done so. While the Internet Archive clearly wants to promote the use of digitized and digital collections already online, their proactive stance vis-à-vis the comprehensive documentation of electronic social discourse (through, for example, the Wayback Machine and other collections focused on major events such as September 11 and Hurricane Katrina) indicates that they are leaning in this direction.

**Conclusion**

In the wake of these recent developments in social mirror archiving, cultural heritage institutions such as moving image archives, must reflect on whether or not it represents a new model for collection building. Will cultural heritage institutions be willing to create systems to acquire and maintain content directly from users, allowing them to define the value of the material through the practices of description, usage, and critical commentary? Does doing so mean that they relinquish curatorial control, and thus have diminished powers as arbiters of value? It would require a tremendous leap of faith for these institutions, yet it would go a long way in showing users that we do in fact believe in the multivalent character of cultural heritage. By embracing multiple systems of valuation, inviting everyone to the table as stakeholders in the process of creating heritage, we would enrich our collections immeasurably.

Cultural institutions still hold an important position in society, as they exist to do much of heritage management work that cannot as of yet be
easily accomplished by most individuals, and they have a responsibility to serve particular functions in society (such as government and corporate archives, which must act as instruments of accountability). Not all cultural institutions will see user-defined value as of primary importance, yet many should consider how to incorporate it within their own systems. It may provide important information that will be invaluable as archivists, librarians, and other professionals with curatorial powers make the decisions about how to spend valuable resources to sustain collections.

Notes
1. According to the most recent Pew study on home broadband adoption, by March 2006 forty-two percent of American households had a broadband connection (Horrigan, 2006).
2. Obviously, the availability of much copyrighted material via these sites may be restricted; however, this new endeavor offers the cultural heritage community another opportunity to continue the discussion with content owners about related intellectual property issues, particularly fair use.
3. Because of the creator- and user-driven nature of these archives, they will accumulate differently than traditional archives. In the Society of American Archivists’ Glossary of Archival and Records Terminology, archives are defined as:

   materials created or received by a person, family, or organization, public or private, in the conduct of their affairs and preserved because of the enduring value contained in the information they contain or as evidence of the functions and responsibilities of their creator, especially those materials maintained using the principles of provenance, original order, and collective control; permanent records.

   (Pearce-Moses, 2005, p. 30)

   Whereas archives in the above sense presumes a single creator, for the purpose of establishing and tracing provenance, this new breed of archive relies upon multiple creators—in some sense, these creators form a community that itself forms the fonds. The self-generating archive or library, where users build and organize collections as a by-product of other social activities, represents a new concept that has yet to be integrated into archival discourse. Yet these types of collections are in the ascendency.
4. The concept of “trusted digital repositories” works well for those materials that cultural institutions have the responsibility to administer, however, one cannot assume that all collections will come under the care of such organizations (RLG-OCLC, 2002).
5. In this article, I will use the phrase, “cultural heritage stewardship,” as an umbrella term for these types of activities.

References


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Abstract
This two-part article considers how digital culture has influenced ideas about permanence. It examines the change in collecting practices in one legal deposit library. The author considers how the idea of permanence, understood in cultural heritage terms, influences digital culture, and, thus, digital technology. The first part of the article addresses the concepts associated with permanence, digital culture, digital technology, social change, and cultural institutions, in relation to collecting digital cultural material. The second part focuses on changing collecting practices of the Alexander Turnbull Library at the National Library of New Zealand for electronically published material with the benefit of legal deposit.

Outline
The first part of this article considers the concepts associated with permanence, digital culture, digital technology, social change, and cultural institutions, in relation to collecting digital cultural material. This is intended to place the change in collecting practices, outlined in the second part of the article, in the context of an evolving understanding of how these concepts might be interpreted and are being applied. The second part focuses on the change in collecting practices of the Alexander Turnbull Library (Turnbull Library) as it develops its heritage collection of electronically published material with the benefit of legal deposit, with particular attention to the change in practice to include the collection of online publications.
CONCEPTS

This Library Trends issue presents preservation in cultural heritage as its broad theme, and this section questions specifically the influence of digital culture on ideas of permanence. Implicit in the question “How has digital culture influenced our ideas about permanence?” is the assumption that digital culture has had, or is having, an influence upon ideas of permanence. But, is that true? Answering this would require exploration in greater depth than is possible in this article, but it is possible to offer up institutional practice as a means of responding to the question. Another question needs to be asked: how is the idea of permanence, understood in cultural heritage terms, influencing digital culture and, thus, digital technology?²

Digital culture is expressed through social, cultural, political, and economic activities that are undertaken using digital technologies. The presence of digital technology and the centrality of its use distinguish these practices and activities from practices and activities that are undertaken using analog technologies or no technologies at all. Ideas of retaining and restoring culture, authenticity, and the regular reexamination and reinterpretation of culture are heavily threaded through cultural heritage discourse, heritage legislation, and institutional policy. People continue to want cultural material collected, looked after and made accessible, whether it is analog or digital. Research interest in digitized heritage material and increased institutional commitment to digitize analog material reflects a link between the demands of digital culture for online access to digital heritage material, and the force of continuing interest in the past—clearly seen in the rise in online (and remote) genealogical research at most cultural institutions. But the nature of digital culture, the material difference of digital cultural heritage, the increasing volumes of digital material produced, and expectations of access and online availability have an impact on notions of collecting: notions such as collecting everything; keeping everything in the manner in which material has been kept before; digital material as original, untransformed and complete; methods and technologies used for acquiring and preserving digital material; and modes and technologies used to access digital material.

Digital technologies have an attendant hype of panaceas or apocalypses. They offer faster computing power, faster rates of update or change, different types of interactive and immersive experiences to that of analog technologies, and they stimulate an interest in what is new, or what is possible, rather than what was. They engender a pressure to respond to intensified rates of change and higher levels of attrition or loss of digital material, and a need to ascertain where or how human oversight and intervention is most feasibly applied to capture what was, and to prepare for what is new and what is possible when collecting digital material.

Digital technologies enable continual change and improvement to
The impelling nature of technological innovation creates two significant complexities from the perspectives of digital acquisition and preservation. The first is the organizational resources and processes that are required to anticipate and respond to the rate of change. Technological innovation per se is unpredictable and volatile, and, in itself, poses feasibility issues for collecting organizations and their fitness to respond proactively to develop the means to acquire and preserve digital material. The second is the opportunity and the right to grapple with the technical implications of change. Proprietary technological innovation tends to develop proprietary formats and applications, posing legal and efficiency issues for collecting organizations, and reducing their ability to openly examine file formats and applications and, thereby, to develop stable collection and preservation strategies. The debate over opening up the documentation of RAW digital image format and the challenge to digital camera producers informs this issue.

The digital technology development industry provides the means to go forward, as the dynamic of digital technology and digital culture demands. The cultural heritage sector issues an equally forceful challenge, driven by continued public interest in cultural material, for technology to be developed that enables people to go forward and backward easily, and to retain the same access to digital content and the experience of accessing it “as it was.” Flexibility that enables digital collecting and preservation to progress in such a volatile environment needs to be built into digital technology. The spiral development referred to by Mackenzie Smith (2005) for the digital archive at MIT emphasizes this point; stability, too, needs to be built into digital technology to permit long-term collection, preservation and access and, thereby, to enable long-term research using digital cultural heritage material. The development industry has yet to take up the challenge of providing the means and flexibility to go backward—a requirement common to collecting institutions and to consumers.

The idea of permanence, as it is understood in the cultural heritage field, is asserting itself upon digital culture and technological development, just as much as digital culture and technology is asserting its requirement for greater flexibility in cultural heritage practice. People have a continuing need to go backwards with ease and “mark the spot,” or experience accessing material in its “time” digitally (e.g., to cite a journal article in an academic paper by linking through a permanent identifier to an online journal, or to play a computer game developed to run on Windows 3.1 in that operating environment, or in one that emulates it). Research and cultural interest in historical cultural content (digital and analog) has not waned; it is evident in the development of permanent identifiers and of emulation technologies. Recent research at the National Library of Australia indicates that the Web sites mostly frequently
used in its PANDORA archive are usually those that are no longer available on the Internet (Crook, 2006). Metadata standards, such as those for recordkeeping metadata for Australian government archives (National Archives of Australia, 1999) and preservation metadata outlined by the PREMIS Working Group (2005), and preservation strategies such as file format migration and emulation, are a response to a cultural demand for permanence in digital terms.

The need to fix things in time and retain artifactual and documentary material from the past is to a degree forensic in nature; authenticity is crucial to society’s understanding of historicity, whether measured in terms of centuries or seconds. Pressure is being asserted on digital technology to meet these interests and needs, so that questions, such as “what happened?” or “what was?,” can be answered with a degree of confidence—confidence that the evidence being examined, or material utilized, is as consistent as possible with what was examinable when it was created and used, and has not been altered to skew its content or context and, thus, its potential meaning. Digital culture wants to continually revise its past as much as project into its future; digital technology will need to evolve to meet and satisfy that desire.

At what level can the word *permanence* be applied to cultural heritage practices? Permanence is a vital principle of cultural heritage: the raison d’être of collecting is to retain a cultural identity and to build up the resources—the cultural and research collections—that permit cultural enrichment, facilitate research, and bring wider social and economic benefits to the society that supports and finances that collecting activity. In principle, permanence is key, and, to a great extent, permanence is key in practice too, in that the business—the operations, sourcing, selecting, acquiring, preserving, and making available material—remains constant. In cultural collecting, permanence applies to *why* cultural material is collected. It is, however, in determining *what* that cultural material is and *how* that business is undertaken that changes in practice are taking place. Anticipating and meeting the needs of researchers, developing digital collections and addressing issues of digital preservation remain a considerable challenge; there are many unknowns in establishing new practices for collecting electronic publications.

Social change resulting from the emergence of digital culture is affecting the operational practices and procedures associated with collecting and preserving cultural heritage at the Turnbull Library. Cultural institutions, such as the Turnbull Library, are also social institutions, and the tensions associated with steering a steady and relevant course in times of rapid social change are not new. Cultural information and knowledge is accrued by cultural institutions and professionals all the time and over time; their understanding and practices are used to develop, maintain, and provide access to heritage collections. Cultural practices are embed-
ded in the development of a cultural institution’s collections, organizational processes, systems, culture, and people, and in the relationship they have with the community. Cultural information and knowledge is fed out into the community and back to the institution. Metaphorically speaking, cultural institutions are in the business of slowly crafting and shaping social and cultural fabric.

Cultural institutions need to be robust enough to absorb the uncertain and complex aspects of social and cultural change, and yet fluid enough to evolve correspondingly to support and present this change. But there is a tension between such fluidity and fixity, which, as Brown and Duguid (2000) note, serves an equally important purpose. Fixity gives a sense of direction:

There are good cultural reasons to worry about the emphasis on fluidity at the price of fixity. But fixity serves other purposes. As we have tried to indicate, it frames information. The way a writer and publisher physically present information, relying on resources outside the information itself, conveys to the reader much more than information alone. Context not only gives people what to read, it tells them how to read, where to read, what it means, what it’s worth, and why it matters. (Brown & Duguid, 2000, p. 201)

This links directly to the role of cultural institutions, which provide a sense of the past, present, and future—cultural and social, fixity and fluidity—on a continuum, irrespective of technology.

It is important to acknowledge these inherent tensions in any response to digital culture. The rate of change, the volume of digital material being published, and the diversity of digital technology and digital culture overwhelm the possibility of applying the same level of human intervention as with analog practice. It is no longer possible to maintain the level of manual processing and to achieve the same levels of comprehensiveness in collecting, and digital preservation methods are nascent. New methods and approaches to managing increasing publication production levels and technological innovation, and a redefinition of acceptable levels of collecting to retain the corpus of electronic publications of a nation, are being developed and implemented.

**Changes in Practice**

The Turnbull Library develops its heritage collection of published material under legal deposit provisions of the National Library of New Zealand (Te Puna Mātauranga o Aotearoa) Act 2003. This recently amended legislation has extended the Turnbull Library’s collecting reach to electronic publications. The legislation defines public documents as those “printed or produced by any other means in New Zealand, or is commissioned to be printed or otherwise produced outside New Zealand by a person who is resident in New Zealand or whose principal place of business is
in New Zealand” (National Library of New Zealand [Te Puna Mātauranga o Aotearoa) Act 2003, s29[1][b]). Thus, electronic publications distributed either as offline publications (made available in portable format) or online publications (made available via the Internet) come within the ambit of the legal deposit.

The Turnbull Library’s collections of published materials include monographs, serials, cartographic and audiovisual materials, special print and rare books, and ephemera. Before the change in legislation, offline and online New Zealand electronic publications were acquired through purchase and by permission. Acquisition of offline and online New Zealand publications is now covered by legal deposit. The intent to collect New Zealand publications comprehensively is consistent with the library’s legal mandate, which remains unchanged. New, though, are the types of publications being collected by the Turnbull Library and how the intent to collect comprehensively is being realized. Collecting and keeping electronic publications has meant revisiting the principles that guide the practice of collecting publications at the Turnbull Library, and applying these principles to the collection of electronic publications.

To collect electronic publications as they are now produced, national and international publishing trends must be understood and monitored continuously to enable planning. The Turnbull Library collects New Zealand publications, works published overseas by and about New Zealand and New Zealanders, and publications that relate to the Pacific and Antarctica. When harvesting material that is not published or located within New Zealand, permission is sought to collect, preserve, and make this material accessible (with the attendant rights observed). The inability to collect published material exhaustively and the need to consider the selection criteria for such material, which standards to follow or set, and which tools and processes can be developed to enable collection, are the key issues facing institutions like the Turnbull Library, whose mission is to collect the national corpus of publications irrespective of format (Illien, 2006; Masanès, 2005). The curatorial intent at the Turnbull Library is to forge a collecting approach to electronic publications that has links to its approach to acquiring print publications, particularly those analogous to traditional print forms, that recognizes readily new publication types as they emerge, and is willing to determine research value and consider what it may take to acquire these new publication types. Diverse curatorial approaches are being undertaken in other national libraries around the world, including voluntary deposit, collaborative selective harvesting, subdomain and whole-domain harvesting, and bulk transfer of digital material (National Library of Australia, 2004). All of these inform the Turnbull Library’s curatorial decision making.

The National Library of New Zealand strategy that enables the Turnbull Library to collect electronic publications comprehensively is to em-
ploy diverse means to build a collection of electronic publications. Material is acquired for the collections through “push” and “pull” business processes. Publishers can “push” offline publications (on portable formats such as floppy disc, minidisk, CDROM, DVD, or hard drive) mostly through the post, and online publications through email or an electronic drop box, to the library, although the deposit of online publications is not required by legislation. The “pull” method currently involves Turnbull Library selection staff running Web crawling software to harvest Web material selectively. The Turnbull Library will soon also undertake domain harvesting.

With regard to the “push” business processes, the legal deposit provisions of the National Library Act require publishers to submit two copies of offline publications to the National Library of New Zealand. One of these comes to the Turnbull Library to keep in perpetuity in its heritage collection. As in the past with printed materials, publishers will be obliged to submit these publications in the portable formats they are published on. Legal deposit staff have been consulting with publishers of print and electronic publications before, during, and since the change in legislation. In August 2006, the gazetted requirements were enacted (National Library of New Zealand, 2006) and the legal deposit staff are now building working relationships with publishers newly covered by the legislation, and establishing deposit arrangements for both print and electronic publications. As publishers are not legally required to deposit online publications, legal deposit staff will seek publishers’ assistance in depositing them electronically. Government publishers (central and local) and tertiary education publishers are being approached first. This approach mirrors the workflow for print monographs and serials, for example those produced as PDF, Word or RTF documents, and the electronic output of these publishers often have high research value and may well be missed in the periodic harvesting that will be undertaken.

Selective and domain harvesting is being undertaken because of the rich research value found in material that has not been published traditionally but is now available on the Web. Small-sized selective harvests based on subjects, themes, and events are being undertaken. The Turnbull Library’s selective harvesting draws upon the curatorial approach to selective harvesting undertaken by the PANDORA (http://pandora.nla.gov.au/index.html) and UKWAC Web archiving consortia (http://www.webarchive.org.uk). Larger-sized harvests based on sub-domain (defined as .govt, or .org or .co/.com, etc, within the larger whole top-level domain) or whole-domain (that is, all Web sites registered in New Zealand and New Zealand Web sites registered outside of New Zealand, including .nz as the country code and .com or .org as the top level domain) are yet to be undertaken.

New tools and technologies are being employed to enable the collec-
tion of electronic publications. An online submission tool has been developed so that publishers can upload published material for selection by legal deposit staff, using selection guidelines developed by the Turnbull selection staff. Domain harvesting is on the agenda for 2006/2007. The means to do this have yet to be identified and applied. The National Library of New Zealand will also look at bulk upload or transfer of digital material and the deposit of databases and data sets. The databases in the deep Web have been identified as rich deposits of published information (Bergman, 2001) and the Turnbull Library is interested in acquiring this type of electronic publication. It is important to maintain awareness of the endeavors of other cultural institutions, publisher interests, any changes in publishing technologies and production patterns and compliance regimes for publishers. While it is desirable to extend the methods of acquiring digital material, resourcing requirements and capacity will continue to be constantly monitored and evaluated to ensure that their efficiency and effectiveness. However the material is acquired, once it is acquired, it is then destined for the National Library’s National Digital Heritage Archive, when it is implemented. Material that is currently stored in the Object Management System, the National Library’s interim digital repository, will be transferred to the National Digital Heritage Archive.

Turnbull Library’s harvesting tool changed in 2006. Thanks to considerable consultation and support from members of the International Internet Preservation Consortium (IIPC), the National Library of New Zealand and the British Library have together developed the open source Web Curator Tool (https://sourceforge.net/projects/webcurator), to manage the selection, acquisition, and appraisal workflow of selective harvesting. The WCT was implemented in October 2006 at the National Library of New Zealand. The cultural heritage field is renowned for its collaborative work and interest in efficiency, and this is a good example of the pooling of skills, resources, and expertise that enables the realization of new initiatives with shared interests and benefits. Other collecting organizations can use the WCT to harvest Web material, contribute to its enhancements, and provide insights to other curatorial and technical practices in building professional knowledge in this arena. Networking with peers has been vital to validate or contradict experience, to debate and challenge traditions and perceptions, and to lead the change behind the scenes well before it is reported in cultural heritage discourse. The work at the Turnbull Library has benefited from the insights of fellow practitioners dealing with electronic publications, in particular online publications, at the National Library of Australia, the British Library, the Wellcome Trust, the Library of Congress, Library and Archives Canada, and the State Libraries of Victoria and New South Wales in Australia.

Decisions made in selection, acquisition, appraisal, and preservation determine the presence and longevity of cultural heritage material.
Some electronic publications will inevitably not make it into the Turnbull Library’s electronic publications collection. Electronic publications may have already vanished or will vanish in the intervals between domain crawls, may not be selectively crawled, or may be rejected during appraisal of harvested material because of damage or loss during technical transfer. It is not feasible to retrieve, let alone acquire, some electronic publications (such as content lost or deleted in dynamic databases or residing on decaying portable format); nor is it possible presently to preserve some electronic publications, because of their unknown or unstable file formats. Concentrating on material of high research value that can be captured now, rather than being obsessive about what is missed, is our current strategy. As with any enterprise associated with value and risk assessment, it is important to be clear about the principles, processes, and priorities driving the activity, and to keep the variables in perspective; not everything can be done at once, and not everything will be perfect. An example of pragmatism driving change in business process is the recognition that publishers and researchers benefit from having the publishing community deposit “traditional” types of electronic publications with rich research value, that is, those produced in simple formats such as PDF and Word, as they publish them. This replicates the process undertaken in print, and connects readily with processes already in place for acquisition and cataloging. The benefits to publishers of getting their publications cataloged and listed in the national bibliographies are well established as a means of driving sales.

The diverse information architectures, technologies employed, and content embedded in Web sites, pose challenges for harvesting. This is the case for selective harvesting in particular, which is driven by an intent to capture material of high research value and therefore focuses more intently on a deeper harvest of a Web site than domain harvesting offers. There are common practices in all of these areas of Web design and production, but there are no enforced standards to aid with analyzing Web site content and structure and configuring harvesting settings accordingly. Selectors and Web archivists need knowledge of Web design and construction, rates of content change, and production trends to assist them in their decision making for selecting material and scoping harvests to capture Web materials. For example, Web material can be closely examined and scoped for selective harvest. The harvester settings and schedules are applied to capture Web material in a manner befitting the research value of its content and its technological dynamism. The Web sites of registered political parties exemplify this. These are mostly unique, in that there is no print equivalent for most of their content. However, at different times and for different reasons, their collective significance may change. Year in and year out all of them have equal significance, but in an election year those of the leading parties may offer more significant content, or those
that engage on an issue of high political interest, such as welfare payments or environmental regulation, may acquire greater social significance and, thus, greater research value and be harvested more frequently. Selectors or Web archivists grapple with these variables and the reasons for acquiring online publications as they evaluate and identify rich content, and set the timing of selective harvests, and appraise harvested Web materials.10

To demonstrate the idea of responsiveness, during the latest budget rounds of the New Zealand Parliament Turnbull Library selection staff selected government Web sites and blogs for harvest with a view to capturing news and debate relating to the budget. Ironically, the 2006 budget was not controversial and the Web content and commentary captured was correspondingly lacking in information and interest. By comparison, the rich commentary captured in blogs during the 2005 parliamentary election in New Zealand was impressive, and efforts to capture it were well rewarded; there is absolutely no equivalent of this Web content published in print.

Large content-rich or intensively dynamic commercial Web sites, however, are not suited to selective or domain harvesting; they offer further technical and curatorial challenges.11 New Zealand examples are Te Ara: The Encyclopedia of New Zealand (http://www.teara.govt.nz) and TradeMe: New Zealand Online Auctions and Classifieds (http://www.trademe.co.nz), both of which have research value. National encyclopedias have long been significant cultural and research publications in print form, and continue in their electronic forms. TradeMe offers different research value in that it reflects a decisive social shift to trading online, and the movement of advertising of new and second-hand goods from print to mostly electronic media. Institutions collecting cultural heritage have always responded to changes in society, politics, and technology, so this is nothing new. Simply put, new means are being established at the Turnbull Library to continue to achieve the same end—the collection of published documentary history.

With Web archiving in particular practices are evolving. Judgments about what is harvested and archived are being made now, but in two years’ time they may be made differently. At present the Turnbull Library selection staff is undertaking selective harvesting based on topics of interest and expertise: music, ethnic communities, sport, arts, and crafts. These topics are far too broad to evaluate effectively the Web sites within them, so specific foci are applied to permit selective harvesting: organizations and recording labels (music); organizations and support resources (ethnic communities); rugby, netball, and golf (sport); and, crafts and craftspople (art and crafts). Within these foci other guidelines for selective collecting apply: a comprehensive representation of national interests or activities, and a selective representation of interests and activities within the Wellington region, where the Turnbull Library is based, as a...
priority. Selection staff have noticed how easy it is to select material when social structures, such as national or regional bodies, are well established, and where an activity has been continued over a long time. Selection in well-established and popular sports, such as rugby, netball, and golf, reflect this. Where Web material is informal, less established, or created by individuals, selection is much harder, and subjective judgment is required to select in a representative manner. Selection in emerging, more fluid or specialized areas of society and social activity, such as recording labels, crafts and craftspeople, reflect this.

In the case of selective harvesting, supporting documentation helps set parameters to assist curatorial staff as they make decisions about the areas they are selecting in, and how they can approach their subject, topic, or event. These selection and appraisal decision-making templates have been designed to sit within a selection and appraisal decision-making framework; the templates and framework provide an intellectual structure for staff. The records of the decisions made by the curatorial staff provide an information base to refer back to in evaluating Web material for selection and for its retention, once harvested. These documents also form a foundation for curatorial understanding to guide the Turnbull Library’s selective harvesting.

The selection and appraisal framework for selective harvesting at the Turnbull Library borrows heavily from archival theory. It places the decision making for selection and appraisal associated with selective harvesting in a collecting context and records the reasoning behind selectors’ choices. Priorities for content areas can be driven by a selector’s expert knowledge of the subject matter or by subject significance, or they may be related to other materials held in the collections. Entirely new forms of publication, new subject areas, or publishers will be added to the collection, expanding the range of the documentary forms or documenters already known and understood. In selective and domain harvesting, these methods of collecting are acknowledged to be representative. The curatorial approach to selective harvesting draws upon archival and museum curatorial practices, and an understanding of the need for representativeness in selective Web harvesting is building internationally. Research at the Bibliothèque nationale de France shows that selective harvesting permits a deeper crawl, whereas domain crawling permits a broader crawl (Masanès, 2005). For the Turnbull Library it makes sense to ensure that selective harvests are undertaken in a timely manner for material that has high research value, especially if those publications are more likely to disappear altogether.

The documentation of findings in appraisal work has been crucial in building up understanding. By recording and then synthesizing curatorial and technological observations, curatorial staff have collated evidence and developed the rationale that informs appraisal decisions. Two
new electronic publications’ selectors at the Turnbull Library undertook this task after the selective event harvests of the 2005 New Zealand parliamentary election. It immersed the new practitioners in the harvested content, and allowed their instincts and questions to emerge in a relatively unconstrained way as they recorded their findings, which led to their appraisal recommendations. Not only did it become clear that material harvested from major political party Web sites and political blogs was extremely valuable, but it also became clear that content on smaller Web sites representing less popular political support or single issues did not change much over the period of harvest. Knowledge of the political and social issues, the controversies that arose, and the close election outcome all contributed to the assessment of the material. None of these discoveries seems particularly surprising—the proof, though, was most definitely in the pudding and it was an affirming exercise (Joe & Lala, 2006).

As noted, the Turnbull Library, with the help of other units of the National Library of New Zealand, especially the Innovation Centre and Bibliographic Services, has moved into the new business of acquiring electronic publications under legal deposit and is establishing feasible and acceptable practices. Different approaches to collecting electronic publications can be taken and they all have attendant benefits and risks. Prioritization for collecting and preservation can be undertaken in different ways with different rationales. For example, the earliest material may be prioritized for selection and preservation because it is less likely there will be documentation available for it or expertise to enable preservation to occur in the future. Then there is prioritization based on the uniqueness of material about which little is known and for which there is no equivalent or facsimile; or—the flipside—selection of material that is being produced now may be prioritized because it is easy to know and there is plenty of expertise around. Or, should one dive into the subjective area of collection assessment and put a research value on some material because it offers the most in terms of research return, determine what the “good material” is and select and try to preserve it first? (Cummings & Mason, 2004). Or, should one not make a subjective judgment and select what is technologically the most feasible to preserve at the outset, irrespective of what it is? Decision-making models are plentiful: Pareto analysis, cost-benefit analysis, decision-trees, etc. What has proved to be important is being able to fill these models with the information required to make good operational decisions, anticipating variables such as staff time, expertise and competencies, technology and project management costs, and social impact.

All of these decision-making scenarios offer reasonable outcomes, but they also present rather sticky ethical questions: how acceptable is the loss that occurs by omission, and which rationale has the most merit? A combination of these scenarios is one way of addressing the issue of
selection. Decision-making models and ideas are being developed to aid organizations that address these collection management issues (Woodyard-Robinson, 2006). Several event harvests have been conducted by the National Library of New Zealand: the 2002 America’s Cup and the general elections in 1999, 2002, and 2005; major government agency Web sites have been harvested regularly since 2003. The rationale driving the Turnbull Library’s selective harvesting has been based on staff time and competencies, technology availability, and research value. Similarly, the State Library of Victoria in Australia has established digital preservation procedures to guide decision making, and has designed digital preservation categories for items collected to prioritize digital preservation work. Simple questions are asked about the item’s heritage significance, technological vulnerability, and scarcity (State Library of Victoria, 2005).

Libraries without a directive to maintain their research collections permanently are able to assess their collections and acquire, preserve, and dispose of research material in alignment with the needs of the funding body or community they serve. In contrast, the Turnbull Library maintains and makes available its collection material in perpetuity. In principle, all material acquired by the Turnbull Library benefits from that long-term investment. In practice, not only is it impossible to collect electronic publications exhaustively because of the sheer volume of material and the pace of technological change, but it is also impossible to acquire, preserve, and make electronic publications available perfectly. Nor should it be possible, as it has never been possible to achieve this with analog material, as attested by the challenges of preserving and providing access to fragile, degraded, volatile, large or non-standard format analog materials. It is unlikely that there will be sufficient resources to maintain digital material in its original form, unless its cultural and research value is equally high and there is a strong imperative to do so.

Diverse technologies and methods are employed, with others yet to be devised, to improve the Turnbull Library’s ability to maintain and provide access to electronic publications. Efficiencies in manual handling and increased use of digital technology to do routine work are required if the Turnbull Library is to fulfill its mandate. In selective harvesting, several areas have already come under scrutiny for further workflow efficiencies where business process change and automation will assist: permissions (for example, the capacity to generate emails using data and templates in the harvesting tool to speed up workflow and enable responsiveness); quality review (for example, the capacity to tune the crawler to achieve more effective crawls resulting in less post-harvest fixing, and the capacity to visualize harvest results that would aid appraisal decision making); and description (for example, the capacity to automate cataloging, attribution of metadata, and/or full-text indexing to augment intellectual access).
The underlying premises of the operational changes are utilitarian or functional, but they are very clearly guided by curatorial principles and business efficiencies. It is important to value these items through acquisition, preservation, and description, but not to undermine the overriding principle—to retain cultural heritage—by attempting to do too much and failing to prioritize tasks and activities.

Digital culture has already exerted its influence on the practices of cultural institutions, such as legal deposit libraries. What, perhaps, are more interesting questions for cultural practitioners—aside from the current challenges of experimentation and implementation, the learning, the successes and failures in the response to the demands of digital culture—are: How are digital culture and digital technology going to respond to the demands of cultural institutions? What are digital users going to do when a cultural institution forces them to identify themselves online, as they would in a face-to-face situation, in an attempt to gain access to sensitive, privileged, or protected material? How will publishers respond to the interest in their material being selected under voluntary deposit or the legal requirement to comply? Digital users are used to facing both open and gated material, and to accepting or subverting it as they see fit. Recent research shows that the generation immersed in the use of digital technology has very high expectations of getting access to vast amounts of digital material very quickly, if not freely, and of using it as they wish (Berkery, Noyes & Co., 2005). This provokes more questions: How will all the interests (of producers, collectors, and researchers) in digital material be balanced? How is digital material going to be collected? How will it be made available—freely or heavily constrained? Will all of those interests be satisfied equally?

Several forces are operating currently, including technocratic, individualistic, democratic, and commercial forces. It is the responsibility of cultural institutions to identify these forces, consider their institutional mandate, and respond, not necessarily with acquiescence, but with constructive, well-considered and planned action driven by their organizational intent and researchers’ needs. In the case of the Turnbull Library, that intent is to collect comprehensively, while accepting that resources must be directed and used carefully, as it continues to collect, preserve, and make accessible its collections for the benefit of the community that it serves. The Turnbull Library must continue to gather and maintain the tangible and intangible value of published documentary history for New Zealanders in its collection of cultural heritage, analog and digital. Its practices are changing because practitioners are asking questions of themselves and of colleagues, experts, technology and digital communities, and are making informed choices. Some these choices are specific, for example, how to choose a Web site to harvest that has research value,
and how to go about harvesting it; other broader questions about preserving Web sites, whether they be simple and static or large, complex and dynamic, are yet to be answered.

So, how has digital culture influenced ideas about permanence at the Turnbull Library? It has certainly tested collecting principles and changed practice, has required a revision of collection policies, standards, procedures, and guidelines, and has stimulated change in business processes to enable the collection of electronic publications. It has provoked significant debate, and practitioners have had to reexamine what permanence means in operational terms when it comes to collecting, preserving, and making digital collections available. Certainly the modes and methods employed have some impact upon what is collected and retained, as do the resources available and the willingness to embrace change. Permanence is about being able to provide material in the collections and to support services that allow communities to trace ideas and events back in the past, draw them into the present, and project them into the future. There is a need to openly anticipate memory loss as much as memory retention, but what is not yet clear is what loss is acceptable and can be expected, and the impact that memory loss might or might not have (O’Hara et al., 2006). Whether that which is regularly used and enjoyed and of value to society now is prioritized for collecting and retention, in preference to that whose value is yet to be realized, or that which may have negligible value and, in fact, may never be retrieved, has yet to be resolved. These are contentious questions about the ethics of prioritizing preservation decisions, although this has long been the responsibility of curators and cultural institutions.

Notes
2. The works by Cameron & Kenderdine (2006), Phillips (2005), and Rabinovitz & Geil (2004) provide examples of practitioners reflecting upon the implications of their actions and decision making in their development and collection of digital cultural heritage.
3. An example of this is appcasting, a means of conveying software releases and updates through RSS (Really Simple Syndication) feeds (see http://connectedflow.com/appcasting/).
4. More than two-thirds of 19,207 respondents to an international survey conducted by OpenRAW expressed concern about inability open or edit raw files created by older digital cameras. Ninety percent of respondents agreed:

   Once a digital image is written to a file by a camera, data in all parts of the image file should belong to the photographer who captured the image. Camera makers should publish full and open descriptions of all parts of the raw image files their camera produce (OpenRAW, 2006, chap. 4)
5. Mackenzie Smith (2005) states:

   Best practice in software development today, especially in areas that are poorly understood like digital archiving and preservation, defines a process by which the system evolves rapidly as our understanding of the problem increases. This is known as “spiral development” (Boehm, 2000), and in practice it means that systems should
be designed with modularity in mind and with the assumption that the code will be all thrown away and recreated often as understanding evolves. Prototypes are created to try new things, and experimentation is encouraged. The assumption is that any attempt to define a “perfect architecture” for the system that solves the entire problem once and for all is naïve and creates too much risk for the organization that depends on it. (p. 10)

6. For the principles guiding the collection of research and heritage materials for the Turnbull Library see the National Library of New Zealand’s collection policy (National Library of New Zealand, 2005, Section 10). The Turnbull Library also keeps unpublished materials in traditional and digital formats in its manuscripts and archives, photographs, oral history, drawings, and prints collections.

7. The Turnbull Library’s mandate is to build a research collection, focused in particular on New Zealand and Pacific Island studies and rare books. It has the task of comprehensive collecting of published and unpublished material relating to New Zealand and its people (National Library of New Zealand, 2005, Section 3). Government funding is allocated for purchasing material published outside New Zealand.

8. Publishing trends indicate shifts from print to electronic, offline to online, static to dynamic online publishing; the volume of the deep Web is also increasing. Publications take very different forms, and the publishing business models are being transformed and challenged. Ready access to digital collection material is an increasing expectation, and managing the rights of owners appropriately is complex.

9. Observing other collecting institutions’ activities, and sharing and validating experience with colleagues in other institutions is crucial, as is cooperation in technological development (see DPC Forum on Web Archiving [Digital Preservation Coalition, 2006]). The collaborative work done under the aegis of the IIPC is a good example of this (International Internet Preservation Consortium, 2006).

10. For a discussion of curatorial decision making with regard to selective harvesting see Koerbin (2005).

11. A diagram identifying types of Web sites, their content changes and interactivity can be found in the work of Netarchivet.dk (2003, section 3.1.3).

12. See Crook (2006) for publisher attitudes and speculation on whether this is generalizable to Web material harvested in whole domain without authority; see also European Union recommendations for national strategies and legislation to support preservation of digital cultural heritage (European Union, 2006).

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Powerhouse Museum (Sydney, Australia), a lecturer in the Masters of Library and Information Studies program at Victoria University of Wellington, and a business analyst, mostly in the cultural heritage sector. Among her recent publications are a joint paper for the 2006 conference of the Library and Information Association of New Zealand Aotearoa outlining the development of the Web Curator Tool, an open source tool to manage selective Web harvesting, and a chapter, “Cultural information standards: political territory and rich rewards” in *Theorizing Digital Cultural Heritage: A Critical Discourse.*
Collaboration for Electronic Preservation

HOWARD BESSER

ABSTRACT
Resource-sharing and knowledge dissemination have been the driving forces behind late twentieth century preservation collaboration. But with the challenge of digital preservation that emerged at the turn of the twenty-first century, collaboration for the discovery of new ways of doing things took on increased importance. Collaborative projects tackled problems like developing new methodologies, establishing standards and best practices, and developing procedures and tools for areas such as emulation and data recovery. This article explains the different driving forces behind collaboration for preservation of electronic material and situates them within recent U.S. preservation and library collaboration history. It then provides two case studies of collaborative electronic preservation projects that the author participated in. Finally, it uses the experiences of those studies to identify a modest set of predictors for success in such future projects.

BACKGROUND
The rise of automation and standards for libraries in the last third of the twentieth century enabled a variety of collaborative activities. The development of the MARC Standard in 1965 and the publication of the Anglo-American Cataloging Rules in 1967 enabled the formation of the OCLC and BALLOTS systems for collaborative cataloging in the late 1960s, and led to their phenomenal growth over the following two decades. By the 1990s, few American libraries would have considered not belonging to a consortium that provided a variety of services based on collaborative contributions from many libraries, particularly shared cataloging services.

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Though initially based upon copy cataloging (and often with business models that rewarded contributions of original cataloging), these “bibliographic utilities” morphed into more generalized services that pooled and leveraged the knowledge and resources of their members. BALLOTS became part of the Research Libraries Group (RLG) in the 1970s, and for approximately thirty years OCLC and RLG continued to separately build new services that relied on continued interactions among their respective members—with a variety of interlibrary loan services (extending into faxing and digital delivery of document copies), collaboration around cultural materials, union catalogs of digital images, etc. And it is safe to say that the 2006 merger of the two organizations holds the promise of further cross-institutional coordination and collaboration, as well as continuation of collaborative development of guidelines, standards, and best practices (such as the joint RLG/OCLC PREservation Metadata Implementation Strategies project—PREMIS) (OCLC, 2006).

In the last third of the twentieth century, librarians began to see collaboration as essential to large-scale preservation projects employing technology. In the 1960s, groups such as the Association of Research Libraries (ARL) and the Library of Congress (LC) endorsed a proposal to create a centralized national preservation repository, but they soon concluded that such a proposal was unworkable (Field, 2003, p. 60). In the 1970s ARL proposed that the goal of national preservation instead be realized by coordinating the efforts of individual research libraries. In 1983 the National Endowment for the Humanities (NEH) gave a grant to RLG for collaborative preservation microfilming, and in 1985 the Council on Library Resources issued a report showing the feasibility of a collaborative national microfilming project to preserve brittle books. In 1985 NEH established an Office of Preservation to support “a sustained and coherent attack on the preservation problem” (Field, 2003, pp. 60–61).

Since 1982, the National Endowment for the Humanities (NEH) has funded the highly successful United States Newspaper Program to create bibliographic records and do preservation microfilming in a coordinated effort involving institutions in all fifty states. And since 1989, NEH has run a highly successful cooperative preservation microfilming project. These and other NEH preservation projects involve coordination and collaboration among a large number of individual libraries. Each library is responsible for a small amount of the total effort, but all libraries share in the results of that effort. Electronic resources have played a key enabling role in these projects, from the planning stage (employing union catalogs that help in determining which works have not yet been preserved), to the preservation stage (using holdings listings that help locate replacements for damaged or missing pages), to the use stage (connecting users to preserved works).

Though enabled by technology, almost all of the various collaborative
projects outlined thus far were driven by resource sharing. They came about because one library could realize cost savings by relying upon something contributed by another library—from copy cataloging (when original cataloging became too expensive for each library to do completely on its own) to interlibrary loan (where most libraries did not have the resources to expand their collections every time one of their users wanted material that the library did not own) to collaborative microfilming (where libraries found it difficult to justify the expense of microfilming a newspaper that another library had already filmed). In most cases, the primary motivation for collaboration has been to avoid duplication of effort, and therefore conserve resources. This is not uncommon. As observed in a recent issue of *Library Trends*:

> Libraries and their partners traditionally work together for “selfish” but positive reasons: to leverage shrinking budgets, to learn from each other, to build better tools together and, most importantly, to serve their common users better by taking advantage of one another’s collections. (Borek, Bell, Richardson, & Lewis, 2006, p. 456)

A key factor in library automation was the leveraging of decentralized resources from several libraries, joining them virtually to make them appear unified (as in the union catalogs of the bibliographic utilities), or creating an aggregate set of useful information from disparate libraries (for copy cataloging, ILL, or preservation microfilming). To achieve success, all of these new services required collaboration between or among institutions.

**Digital Content Prompts New Reasons for Collaboration**

With the emergence of library projects handling digital content in the mid-1990s, the forces driving collaboration shifted. Digital content posed problems unlike those that libraries had faced before. Within a library, interdisciplinary teams had to be assembled with expertise in mass storage, file formats, metadata and interoperability standards, user behavior and accompanying interfaces, and digital preservation. This involved teams that had to adopt principles from various library departments (Systems, Cataloging, Conservation, User Studies), but had to learn a host of new knowledge and skill sets. And few libraries could develop all these needed skills on their own. Because of the significant challenge posed by the emerging field of digital content, libraries found it necessary to not only build collaborative teams from various departments within a given library, but to also collaborate with a host of other institutions. At that point in time, the primary force driving collaboration shifted from saving resources and avoiding duplication of effort, to bringing people together to solve new problems.
Others have observed digital projects pushing librarians into more collaborative actions. A key advocate for collaborative work, Liz Bishoff (2004), formerly of the Colorado Digitization Project, has observed, “Rarely do we find statewide or even regional resource collaboration. Thanks to the digital library, a cultural shift is beginning to take place, and . . . is putting collaboration on digital initiatives on the front burner for all types of libraries” (p. 34). Bishoff goes on to cite the advantages of these collaborations:

Together, institutions that see aspects of a problem differently can constructively explore their differences. The resulting joint solution is always stronger than what one library or museum could achieve alone. . . . Collaboration makes it possible for every institution to capitalize on the professional traditions and expertise of all. (p. 34)

Others have cited the primacy of collaborations to contemporary digital projects. In her important paper on “cyberinfrastructure,” Coalition for Networked Information Associate Executive Director Joan Lippincott focuses on the importance of collaborative work in this new environment, and places “Partnerships” as the central element in her opening diagram, making partnerships the link between all other activities (Lippincott, 2002, p. 439).

Some of the collaborative digital-based efforts were focused on developing important standards for interoperable retrieval of digital content. These included the 1995 Dublin Core (which brought together librarians, computer-based retrieval professionals, and text-encoding standards specialists), the 1998 Making of America II Project3 (a collaboration between archivists, text-encoding experts, a systems office, and a library school), the 1999 project on Technical Imaging Metadata4 (a collaboration between NISO standards creators, digital imaging specialists, library automation experts, and museum professionals).

Other digital content projects have needed collaboration just to accomplish the project goals, which frequently have involved the creation of a union catalog or (more recently) the creation of a virtual collection composed by linking together the content of multiple institutions. One of the first such projects (begun in 1995), the Museum Educational Site Licensing Project (MESL) aggregated digital content and metadata from six museums and the Library of Congress into an identical set that was disseminated via seven different retrieval systems on seven different university campuses (Besser, 1997; Besser & Stephenson, 1996; Besser, Lack, & Yamashita, 1999; McClung & Stephenson, 1998; Stephenson & McClung, 1998). This mammoth project involved extensive collaboration between many different types of personnel at these fourteen institutions—catalogers, information technology staff, museum education departments, museum publications departments, teaching faculty, instructional tech-
nologists, imaging specialists, reference librarians, etc. The project required intensive collaboration at the outset to assure interoperability, and throughout the project’s three-year lifespan the participants collaborated on changes to the various implementations through evaluations, improvements, and service extensions. Collaboration also contributed to mutual support, information sharing, and a host of other less tangible benefits.

There are many more recent examples of large multi-institution collaborations involving the cooperation of many different departments within each institution. Primary among these are the Colorado Digitization Project (www.cdpheritage.org) and the Virtual Museum of Canada (www.virtualmuseum.ca). According to Borek et al. (2006), “These services are standards based. They provide centralized search portals for end-users, as well as supplying organizations with training and tools to enhance their digitization abilities” (p. 458). These projects go far beyond union catalogs, and offer many different services. They leverage the cumulative knowledge among all participant organizations, and are able to tackle problems that most of their participant members could not tackle on their own. They encourage collaboration between people from multiple backgrounds and have them bring their various perspectives to bear on challenging new problems.

**Preservation of Electronic Works**

The preservation of electronic works involves layers of complexity beyond those encountered in most digital content projects (Besser, 2000; Garrett & Waters, 1996). Preservation projects encounter similar challenges that previous digital content projects faced. But, in addition, preservation projects face issues of rapid format obsolescence as well as the need to use a particular type of electronic machine even to identify what the work really is. And these preservation projects need to assure that a work will be accessible into the next century (a very difficult prospect, given that thus far most digital file formats have changed at least every few years, and few analog video formats last more than twenty years without being eclipsed by newer formats) (Besser, 2001).

Preservation of electronic works involves significant standards development, and is intimately intertwined with issues of access. As Jeffrey Field (2003) of NEH has observed:

It is interesting to note that in characterizing the notion of “digital preservation,” we speak or write about ensuring “continuing access to digital collections.” In using this location, we acknowledge that, with reference to digital technology, preservation and access are fused, because preservation becomes the ability over the long term to retrieve and reproduce digital information. This is why the creation of metadata standards for digital objects is such an integral part of developing a digital preservation program. (p. 66)
An important part of earlier preservation microfilming projects involved technical research (much of it at the Image Permanence Institute under funding from NEH), experimentation, and the development of standards and guidelines. Looking toward preservation in the digital age, Field (2003) contends that one of the two key components of a national preservation infrastructure is “the pursuit of research and demonstration leading to the creation of standards, best practices, and a new preservation technology” (p. 60).

Few libraries have the staff to tackle many of these issues on their own. As Stewart Granger (2002), the coordinator of a major United Kingdom digital preservation project has written:

Even a cursory examination of the problems of digital preservation indicates the positive need for collaboration amongst interested parties and institutions. It should be obvious that such collaboration is likely to facilitate cost savings, either by economies of scale or by other means. That, I think, is both true and important but I believe does not convey the scale of the problem confronting us. (section 1.2)

Granger cites a number of areas where collaboration will be critical for digital preservation, most of which few libraries have experience with: developing and maintaining emulators, developing metadata tools, and providing data recovery services.

Collaboration is seen as a critical part of national preservation plans in the electronic age, in the United States and abroad. Field (2003) asserts, “To advance our capacity to ensure continuing access to digital collections—textual and non-textual—we will need to sustain a collaboration among multiple agencies and knowledge domains” (p. 59). Neil Beagrie (2002), the UK’s higher education official responsible for digital preservation has written, “In the UK widening collaboration across sectors and between institutions has been seen as a key requirement to address digital preservation challenges at a national level” (Introduction section). As Michèle Cloonan (2001) has observed in her insightful article about the future of preservation, “Digital preservation projects are already creating (or forcing) some cross-disciplinary collaborations” (p. 239).

But, the UNESCO Guidelines for Preservation of Digital Heritage warns:

Collaboration costs. It takes time and energy to negotiate agreements, to work with remote partners, and to maintain momentum. Organisational priorities can be sidetracked by problems in the collaborative relationship itself, taking attention away from the real mission of preserving digital materials. (National Library of Australia, 2003, p. 62)

Case Study: Preserving Digital Public Television

Preserving Digital Public Television is a highly collaborative project (Preserving Digital Public Television, 2006) between the two largest originators of public television programming (WGBH in Boston and WNET
in New York), the New York University Library and its master’s degree program in Moving Image Archiving and Preservation (MIAP), and the Public Broadcasting Service, national broadcasting network (PBS). Core project team members include digital library experts, broadcasting technical staff, television librarians and archivists, digital preservation specialists, moving image preservation faculty and students, video conversion specialists, and programmers.

In November 2002, the author met WNET special projects staffer Nan Rubin at the annual meeting of the Association of Moving Image Archivists. They began ongoing discussions around the possibility of a large-scale public television preservation project. Public television was already engaged in digital editing and preparing to shift to digital distribution, and was worried about how to save content when analog tape was not part of the life cycle of programs. At the same time, the Boston and New York public television stations were planning a digital asset management system that would further the need for digital preservation.

In March of 2003 more than two dozen representatives of WNET, WGBH, PBS, and NYU met in New York to discuss feasibility and commitment to such a project. All parties were enthused about collaboration. NYU could contribute expertise that the public television parties did not have (in building and maintaining digital libraries, in standards and wrappers for long-term preservation of digital materials, in linking with a larger community that had been struggling with digital preservation of textual materials since the mid-1990s, and in understanding how choice of compression schemes and file formats affect preservation). The two public television stations and PBS could contribute expertise that the others didn’t have (in understanding and managing the content created, in intimate knowledge of the production process and the lifecycle that each bit of content goes through, in knowing about quality needs and benchmarks that must be met for distribution and broadcast, in understanding the asset management system that was being planned for both stations).

Regular meetings began between smaller groups representing the various parties. In the fall of 2003, Nan Rubin audited NYU’s MIAP introduction course, and became intimately familiar with MIAP’s approach and expertise. And in September 2003 when the Library of Congress issued their Request for Proposals for their new National Digital Information Infrastructure Preservation Program (NDIIPP), these parties were well-positioned to apply for funding. In November 2003 they submitted a three-year proposal requesting three million dollars from NDIIPP to be matched by another three million dollars from the collaborators. They were awarded just a little less than they requested, and signed a contract in October 2004 for a project due to run until October 2007.

All of the project partners as well as the management of the larger NDIIPP project commonly regard the first two years of the project as
very successful despite a variety of set-backs (NYU lawyers delaying half a year before signing the agreement, the head of NYU’s digital library program leaving to take a faculty position elsewhere). The project has generated important studies: on user needs for archival material; on metadata schemes in use by other television collections; examining workflows of various productions to determine where preservation-related metadata might be added earlier within the life cycle; on intellectual property issues that might inhibit preservation of older material. The project has also taken the lead in helping other projects—bringing together the principals involved in various digital video wrapper schemes (MXF, AIF, METS) to discuss ways that they could work together; bringing groups together to help with important decision making for the Library of Congress’s new National Audiovisual Conservation Center; facilitating the final stages of PBS’s Next Generation Interconnection System; promoting the new public broadcasting metadata standard (PB-Core).

Why has this collaboration been so successful? First of all, there was a huge amount of mutual respect among the parties even before they first met. NYU had a huge respect for public television. The public television participants had a great deal of respect for the work of the digital library community. Previous preservation-oriented writings of WGBH staff (Ide, MacCarn, Shepard, & Weisse, 2002) and of MIAP staff (Besser, 2001) contained remarkably similar ideas, and both sides already had an enormous respect for each others’ approaches to the problem. The parties felt a great deal of synergy in that they all shared common goals, but each party brought a different important skill or knowledge base into the collaboration.

All the parties involved were committed to the project, and would have continued their engagement even without the NDIIPP funding. From early on in the project there was active high-level commitment and support from most of the players (at the vice-president level from the two stations, at the dean’s level from the university). And because of the complexity of the problems facing the project, all parties could see continued ongoing payback in collaboration over many future challenges that would need to be addressed after the initial grant period ended.

Another key reason for success was the level of deference between the parties and the attempts to understand each other. There was acknowledgment of strong cultural differences between the television participants, the library participants, and the academic program participants. Each had respect for the others’ institutional cultures, and many attempts were made to understand those differences. There also was a great deal of sensitivity exhibited—knowing when to defer to the other party’s expertise, and a willingness to drop a proposal that one party found problematic. In addition, all parties recognized the importance of achieving goals that may be of primary importance to only one or two of the parties (such
as MIAP wanting to create real-life working experiences for the student employees, the NYU Library wanting to test out repository design, or the television stations wanting to improve their asset management systems). And from the beginning project decision making was consensual, with each party seeking out all partners’ views before taking any action that might even mildly impact another partner.

**Case Study: Preservation Research on Analog Tape Content**

In 2005 the NYU Library along with the MIAP academic program began to formulate a preservation research proposal on the deterioration of tape-based media. Collection assessments had become an important tool to set conservation priorities for monographs and other paper materials by identifying subsets of the collection that were most at risk. This new project would attempt to create similar collection assessment tools for tape-based audio and video collections.

Most preservation assessment has been based upon visual inspection of random portions of the collection. While that appears to work well with paper collections, many in the audio and video world remain skeptical of the utility of such assessments on tape preservation. Visual inspection provides clues to brittleness of paper, mold, or other types of the most critical paper risks. Yet many critical risks to tape collections (signal weakness, control track decay) cannot be discovered without actually playing the tape. And, by far, the most critical risk factor for tapes—format obsolescence—has nothing to do with visual inspection, and can be derived from catalog records. In addition, tape preservationists have hypothesized that factors such as tape stock, and recording and previous storage conditions may play a major factor in deterioration, so any assessment system selecting only small portions of the collection for more intensive scrutiny must consider these other factors.

This project proposed to create a preservation assessment tool specifically geared to audio and video tape collections. The tool would be designed to aid academic and research libraries in assessing risk to tapes, and to set priorities for treatments and reformatting. Funding was secured, and the project began in mid-2006.

The collaboration aimed to use the strengths of both parties. The library had considerable prior experience in conducting assessments to prioritize preservation of paper collections, and the head of the Preservation Department had published on the subject of selection for digitization. The library also had a large tape collection covering a wide span of time and formats that could be used as a test bed. The academic program knew a lot about issues of chemical and electronic factors affecting tape deterioration as well as issues of format obsolescence risks. The academic pro-
gram had also taught collection assessment of audiovisual collections as a fundamental part of the curriculum. Faculty in the academic department had a long track record on research. And the parties had enjoyed a two-year collaboration, in which selected students in the academic program were given paid internships in the library’s Preservation Department, giving them practical hands-on experience under the library’s Moving Image Preservation Specialist.

The project work plan took advantage of the strengths and emphasized the needs of both parties. Project research would be directed by the Moving Image Preservation Specialist. Each year of the two-year project, the bulk of the research would be carried out by a different MIAP Research Fellow—an immediate past graduate of the MIAP Program (contributing the latest ideas from the academic program, and answering the pressing need of MIAP to demonstrate to incoming students that immediate post-graduate fellow positions could replace the lack of financial aid that the program could offer). Current MIAP students would be hired to view and log conditions of tapes to test whether predictors for deterioration held true (giving real-life experience to students in the academic program, and helping the library extensively canvass their collection), and MIAP faculty would guide the iterative research involved. The work plan appeared to be the basis for a solid collaboration.

But problems arose just as work began on the project. The first indication was a dispute between the academic program and the library Preservation Department over the job description of the MIAP fellow: the academic program wanted the job description to say that research would be guided by both the library and MIAP, and the Preservation Department wanted to only mention the library. This first dispute was settled by the library administration, who developed language to make clear that daily reporting would be to the Preservation Department, but that research would be collaborative between both units.

A more serious problem having to do with how recently the new hire should have graduated was not resolved without leaving bitter feelings between the parties. Though both parties appeared committed to common primary objectives of the project, their secondary objectives were quite different. The academic program saw the hiring of the MIAP fellow as a replacement for financial aid, and was so committed to hiring an immediate graduate in each of the project’s two years that they wrote that explicitly into the grant proposal. The Preservation Department wanted the best person for the job, and obviously the best person was not necessarily an immediate past graduate, but someone who had had post-graduate work experience. In addition, the Preservation Department felt that prior MIAP graduating classes should be eligible for the honor of a fellow position, while the academic department was worried about their own
credibility, having promised the fellow position to the set of students who had just graduated.

In addition, embedded culture within the NYU libraries may have played a role. The long-standing policies of a previous administration had encouraged library departments to be extremely protective of their turf and discouraged collaboration, even between library departments. Under that administration, most departments viewed any attempts at collaboration with suspicion, and resisted ceding any forms of decision making to other units. Though the current library dean has made collaboration a priority and encouraged the kind of atmosphere that involves the give-and-take relationships that come with collaboration, these embedded cultures take a long time to change.6

The point is that such subtle variations in perspective and historical practice must be accounted for between or among collaborating parties, and must be worked out orally and in writing when the collaboration is being codified. As can be seen from this example, writing one party’s secondary need into the text of a grant application is not sufficient if that need ends up clashing with the secondary need that the other party has not articulated there. Instead, parties in a collaboration should try to discuss and codify all aspects of their different approaches beforehand, and even try to probe for secondary needs that have not been articulated. General approaches about how to solve future clashing needs should be outlined as well. Such forward thinking may help to diffuse the tensions between the parties and facilitate the smooth operation of the project.

**Making Collaboration Work**

Most guidelines for library collaboration have been based upon experience derived from a limited number of concrete projects. Here is a summary of key points from these prior observations.

As William Potter (1997, p. 416) has pointed out, collaborative projects tend to work best when the libraries involved have a common funding source, such as in statewide consortiums. In such cases, economies realized from collaboration do not necessarily have to be demonstrated to different funding bodies, each of which may be suspicious that the other parties are realizing greater cost savings than their own library.

A task force on library cooperation formed by the Ontario Library Association pointed to several key ingredients in making a collaboration successful: “strong sustained leadership; a history of cooperation and interorganizational understanding . . .; [and] committed personal, professional relationships among key persons who can make decisions to act jointly (as cited in Borek et al., 2006, p. 457).

The UNESCO *Guidelines for Preservation of Digital Heritage* urges those embarking on projects to look at prior experience, which suggests that collaboration often is successful if the partners do the following:
Understand what they want to achieve collaboratively
Choose appropriate partners who can contribute
Share interests and commitment, established through discussions and demonstrated in action
Allocate enough resources to meet commitments . . .
Communicate often and effectively . . .
Set realistic targets and regularly evaluate the arrangements (National Library of Australia, 2003, pp. 65–66)

We can derive the following modest observations from the two case studies presented in this article:

- **Share goals:** All participants in a collaborative project should agree with the basic goals of the project. Signing a joint proposal for funding may not be enough to guarantee mutual understanding of common goals. Spending much time with other collaborators is one of the few ways to help each party understand how those coming from different perspectives and cultures may perceive the project in various ways.

- **Respect secondary goals:** Project partners may have a variety of secondary goals. Though these may not be a part of the main project goals, they could be critically important to one of the parties. These secondary goals should be articulated early on, and new secondary goals that may emerge should be identified and discussed as they may effect the operation of the project.

- **Acknowledge and respect differences:** Collaborations tend to be more successful if each party acknowledges and respects the differences between themselves and the other parties. It’s a real advantage to think that other perspectives, approaches, and skill sets can enhance a project rather than act to its detriment. Groups that are not too protective of their own ways of operating tend to be good collaborators. Participants should expect there to be give and take in a project, and that things will not always be done precisely the way they think is best. Ability to defer to others tends to work better than strict adherence to a single “correct” approach.

- **Think beyond a single funding round:** Expectation of continued engagement between collaborators can be a good indicator of collaborative success. Often, a single funding opportunity prompts collaboration, but if partners see a long-term future together, there is strong motivation for them to solve immediate difficulties.

As the UNESCO preservation guidelines caution, “The benefits of collaboration usually do not happen by accident, but result from careful attention to choices” (National Library of Australia, 2003, p. 63). One should not expect to automatically be a successful collaborator any more than one should expect to be a good cataloger, reference librarian, or preservationist. Each of these requires learning, experience, and some
kind of predisposition for that type of work. While one should not expect to spend years studying to be a collaborator, it is naïve to think that one can just walk into a first collaborative environment and be successful. Studying and learning from one’s own mistakes and those of others can be an effective path towards successful collaboration. Electronic preservation projects heeding these warnings about collaboration issues are more likely to succeed.

Notes
1. *Electronic works* refers to works that require electricity-based technology to view them. This encompasses all digital works, as well as analog video and audio works. These works were first created in the last half of the twentieth century, and they pose particular preservation problems in that all require electricity-based machinery that must both read a particular storage device and understand the encoding scheme. These works pose the challenge of making them readable when current devices become obsolete, and the methods for decoding them are forgotten.

2. The later AACR editions/revisions published in 1978 and 1988 were particularly useful in spurring further growth in cooperative cataloging.

3. MOA2 eventually morphed into the Metadata Encoding and Transmission Standard (METS), which is currently the standard most frequently used to wrap content for submission to a digital repository.


5. For the purposes of this article, we do not mean for “electronic works” to encompass photographic or motion picture film, as at least rudimentary viewing of those types of works can take place without electronic machinery. Though many of the arguments here will also hold true for those film-based media, the inability to even determine what is stored on digital and magnetic storage devices without the proper electronic machinery adds a huge level of complexity and responsibility to the preservation problem for digital and magnetic media works.

6. It should be noted that the adoption of a collaborative culture in the NYU Digital Library (as alluded to in the previous case study) was fairly quick, as that department was completely developed under the current library dean, and had no prior exposure to the turf-protecting culture.

References


A Natural Collaboration: Preservation for Archival Collections in ARL Libraries

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ABSTRACT
In-house collaboration between the archives and preservation departments of Association of Research Libraries (ARL) member libraries is not well established. This article presents data from a survey of special collections repositories in ARL member libraries, conducted in 1995 and repeated in 2006, that document the low levels of collaboration. The authors probe the history and development of preservation efforts in archives and in libraries and make a case for further examination of how the expertise and resources of archives and preservation departments can be shared in managing the preservation of archival materials.

INTRODUCTION
The paradigm of collaboration is ubiquitous in all sectors today, public and private, and between diverse partners. As James E. Austin (2000), of the Harvard Business School, has pointed out, “When you cannot go it alone and succeed, collaboration becomes a prerequisite to effectiveness”; it is natural for institutions to “come together to assemble sufficient collective confidence, knowledge, financial resources, or political power to enable them to be effective” (p. 10). In the world of research libraries, it has become a keystone of the culture. Collaborations and partnerships have allowed them to pool resources, collect cooperatively, manage collections efficiently, achieve long-term preservation goals more effectively, and adapt to new technology. At the same time, collaboration improves institutional vision and raises awareness both within and without individual institutions. Partnerships in the realm of research institutions benefit contemporary and future societies by ensuring the existence of knowledge and information.
Many examples of collaboration exist in the landscape of preservation efforts in research libraries. External collaborations among research libraries and internal partnerships within libraries to achieve preservation goals are ongoing and have been for decades. Externally, instances of reciprocal agreement between libraries to achieve preservation goals began collegially as far back as the 1960s, as librarians shared their knowledge and skills to develop techniques and management systems to keep collections usable. Proof of the preservation communities’ cooperative behavior was never more evident than in the collective efforts to salvage the cultural heritage of Florence after the flood of the Arno River in 1966. November 4, 2006 marks not only the fortieth anniversary of that legendary flood; it also commemorates a remarkable communion of teamwork, an important point of reference in the history of cooperative efforts within the preservation community. Looking back on that event, Darling & Ogden (1981) said, “[c]onservation activities in the rest of the world virtually came to a halt as binders, restorers, and conservators joined a massive international salvage effort” (p. 14). In the United States, other early examples of cooperation, partnerships, and collaborative efforts to preserve library collections were primarily led by the Council on Library Resources (CLR), founded in 1956; the Association of Research Libraries’ (ARL) Committee on Preservation of Research Library Materials, appointed in 1960; and the Research Libraries Group’s (RLG) Preservation Committee, appointed in 1978. Later, preservation partnerships grew to include state and regional consortia, such as the Northeast Document Conservation Center (NEDCC), founded in 1973 under the name New England Document Conservation Center; the Conservation Center for Art and Historic Artifacts (CCAHA), founded in 1977; the New York State Conservation and Preservation Program (CPP), established in 1984; and the Committee on Institutional Cooperation (CIC) Preservation Committee, begun in 1988. While no one has written a formal history of collaborative preservation efforts among libraries, library literature is rife with examples of partnerships created to promote the preservation enterprise for book collections.

Collaborative alliances within research libraries exist amid an array of joint efforts between circulation, collection development and preservation departments that combine their efforts to identify books in need of preservation. Co-determined efforts also exist between preservation and cataloging departments to maintain bibliographic control over books that are reformatted, deacidified, or otherwise conserved. These internally coordinated efforts achieve a common goal: to protect and keep the library’s collections in useable condition. Many of these collaborative paradigms were fostered and established through the Preservation Planning Program, or PPP, sponsored by the ARL in the late 1980s until the mid-1990s (Darling & Ogden, 1981). As a result, most of today’s research
libraries have well-established systems to ensure the viability of their preservation efforts.

In spite of this admirable tradition of collaboration, and despite the integration of preservation activities within research libraries, libraries essentially have bypassed the preservation management needs of special collections, particularly archival collections. When the “archival stone” is upturned, cooperative efforts are curiously absent in the very place one would most expect to find them: in ARL research libraries where preservation programs are administered alongside archival and special collection programs. A study of special collections in ARL membership libraries conducted in 1995 by Tyler O. Walters, found that the two functions of preservation and archival administration within research libraries rarely intersected. Walters concluded that “archives generally are not benefiting from the expertise found in library preservation departments, even though about 80% of the reporting archives [participating in the study] reside within the library organization” together with preservation departments (1998, p. 176). Ten years later, De Stefano and Walters (2006) conducted a follow-up survey of the preservation activities among the same population of ARL member libraries and found some minor improvements in the level of preservation activity within individual archives, but there were few gains in partnerships between archives and their respective library preservation departments. Given the propensity and willingness of research libraries to form partnerships and their capacity to further preservation goals, the absence of well established in-house collaborations between the departments of archives and preservation at this time warrants earnest examination.

The following article presents data that continues to document a history of low levels of collaboration between archives and preservation departments in ARL libraries. The authors probe the history and development of preservation efforts in both archives and libraries and make a case for further examinations of how these two units could share expertise and resources to jointly manage the preservation of archival materials. The inspiration to achieve a joint resolution to this problem lies at the heart of the mission of preservation programs. Certainly, a shared path promises to culminate in a purposeful fortification of the rich archival collections held both individually and collectively by ARL member libraries. While internal collaboration may appear to have consequences only to individual institutions, by extension within the ARL membership, an enhanced alliance between archives and their preservation departments stands to have significant national benefits.

Surveys of ARL Special Collections

In 1995, Tyler O. Walters surveyed special collections repositories in ARL institutions. The findings of the survey were published in his article

1) to create a base of data regarding the development of archival preservation programs in North American research institutions and interpret that data, and 2) to understand the extent to which the archives and library preservation departments interact in their common mission to ensure the availability of research materials to present and future generations. (p. 164)

Thorough research methodology was employed to examine preservation management practices at 170 archival repositories. Walters describes the population surveyed as follows:

The target group of this study was institutions whose libraries were members of the Association of Research Libraries (ARL) and were responsible for collecting, preserving, and providing access to archival materials. The target group was not restricted to those archival repositories administratively placed within the library. Archival units reporting to offices such as college or university president, provost, dean, or the director of a non-profit cultural institution [were] included. The only requirement was that the surveyed institution or institution’s library was a member of ARL. Of the 120 ARL members, 113 institutions representing 170 archives and manuscripts were asked to participate. No archival repositories were found in seven of the ARL institutions (p. 165).

Closely following Don Dillman’s (1978) *Mail and Telephone Surveys: The Total Design Method*, the Walters survey recorded a high response rate of 84.1 percent (p. 166). The results identified an improvement in preservation activities over earlier surveys of individual archives, but the level of collaboration between archives and preservation departments was “disappointingly” low (p. 173). According to the study, exceedingly low levels of cooperation between the two were found in all aspects of holdings maintenance. Collaboration for conservation treatments was not as low, but survey results showed that archivists were performing their own treatments 50 percent of the time and “a mere four respondents (3%) indicated that [preservation] assistance was occurring” (p. 173). Reformattting results showed that 67 (69 percent) repositories were using external microfilming services and, within this group, 18 said the preservation departments carried out this responsibility and 14 said the archives’ staff was responsible (p. 174). Given these results, Walters rightly questioned the degree to which standard pre- and post-microfilming procedures were followed, however, the questionnaire did not specifically seek this information (p. 174). With respect to preservation planning, only 8 out of 135 respondents indicated that a library preservation department representative was responsible (p. 175). (See appendix A.)

Walters’ 1998 report of the survey contains more detailed information on the results of the study; his conclusions and recommendations were
highly insightful. But it is the last piece of data mentioned above that captured the primary interests of both of the current co-authors in 2006—that so few library preservation department personnel are responsible for, or even involved in, archival preservation. De Stefano and Walters question whether preservation planning in archives has remained primarily within the purview of the archives, or whether more collaboration with preservation departments has developed since Walters’ observations were published in 1998. With this in mind, a follow-up survey was conducted in 2006. (See appendix B.)

In order to compare findings, the target population for the 2006 survey used the same list of 113 ARL institutions representing the same 170 repositories. The applied methodology was also the same except for the dissemination method: the 1995 survey used a paper-based questionnaire and the 2006 survey used a Web-based questionnaire. De Stefano and Walters followed the revised edition of Don Dillman’s *Mail and Internet Surveys: The Tailored Design Method* (2000), updated for email and Web-based surveys. A test of the Web-based survey instrument was conducted, the population received a trial email to confirm the name and email address of the appropriate person to complete the survey, and the survey was sent with an email message equivalent to a cover letter containing the URL for the survey. The survey questions used exactly the same language and response choices as the original 1995 survey.

**Highlighted Comparisons of Data From the 1995 and 2006 Surveys**

Ten years later (2006), the data gathered between the two surveys remain essentially the same, based upon a 44.7 percent survey response rate. Despite the authors’ hopes and wishes for improved collaboration and resulting improvements in archival preservation (this is our stated bias), library preservation departments and archives departments are still not collaborating significantly. There are limited increases of the application of preservation actions to archival collections. There does not appear to be an increase in preservation planning that is being expressed and coordinated. Specifically, the 2006 data shows no significant changes in areas such as written policies regarding preservation practices like document handling by users, photocopying procedures, reading room monitoring, or policies and procedures for selecting documents for conservation, holdings maintenance, or reformatting. Even the amount of libraries that practice environmental monitoring is about the same, although the new data shows archives changing equipment in favor of new digital temperature and humidity recording devices. This is an expected trend, given how most any kind of equipment in any field is becoming digital. Interactions to conduct preservation planning and surveying have not changed significantly either. The new data suggests the need for a deeper examination of
why library preservation and archives departments are not collaborating as robustly as they could. A strategic plan is needed that will alter this situation and result in better-preserved archival collections.

Having put forth this initial description of the 2006 data, there is a small rise in some preservation activities and interaction between the two departments that seems to be borne out by the new data. The responses from question #5 indicate that library preservation departments have about 30 percent more trained archives staff than they did in 1995 in regards to carrying out holdings maintenance activities—a seemingly good sign that preservation collaboration is on the rise. However, when this data is juxtaposed with data from questions #3 and #3a, a different interpretation can be concluded. Question #3 asked if anyone has conducted a holdings survey of the majority of the archives holdings within the past two years. The question results are the same. Question #3a asked whether holdings surveys resulted in more rehousing or reformatting of deteriorated items. In 1995, 86.6 percent of the respondents said that surveys resulted in more rehousing and reformatting activities. However, in 2006, the positive response dropped 35.4 percent. Now there is a positive correlation between holdings surveys and preservation activities only 50 percent of the time. In summary, there is no anticipated upswing in holdings surveys, and preservation activities actually dropped by 35.4 percent, demonstrating that even though library preservation departments seem to be increasing their training of archives staff in holdings maintenance activities, it is not resulting in increased holdings surveys and holdings maintenance work. In fact, the latter appears to be dropping significantly. Unfortunately, the survey was not designed to capture data indicating why this drop in preservation activity appears to have occurred.

Preservation activity has moved positively upward in the area of conducting conservation processes. The 2006 data (question #11) shows that activities such as dry cleaning surface of documents are up 10.5 percent, basic mending and repairs are up 13.6 percent, and encapsulation is up 10.5 percent. Changes in the amount of activity related to pH testing and deacidifying paper are similar to 1995. This modest upswing correlates with data from question #12 in 2006 that points out who is doing the conservation work. In 1995, it was library preservation departments 28.2 percent of the time and 50 percent archives departments. In 2006, library preservation departments now carry out conservation processes 47.2 percent of the time, representing a rise in activity of 19 percent. Archives departments have decreased, but only slightly to 44.4 percent—a 5.6 percent decrease. The data on library preservation departments training archives staff to carry out conservation processes remained about the same. In 2006, 2.8 percent of the respondents indicated this training was occurring; in 1995, it occurred 3.2 percent of the time. The overall data on conservation processes demonstrates that library preservation depart-
ments may be doing what they do best—conserving paper—but they are not directly interacting with the archives department to carry out conservation work.

Another basis for data comparison is in the area of preservation planning, financial and staff resources, and organizational placement. Question #15 asked who is principally responsible for preservation planning and monitoring for the archives. The changes are not large, however; the data shows that a library preservation department representative is responsible for archives preservation planning and monitoring 9.9 percent more of the time than the 1995 data showed (15.8 percent, up from 5.9 percent). A designated preservation officer from the archives staff has increased 6.2 percent of the time (22.4 percent, up from 16.2 percent). The archives department head maintains this responsibility most of the time, 42.9 percent in 1995 and 46.1 percent in 2006. While we are pointing out these slight upticks in preservation planning responsibility, it is still more significant that only one in 6.3 times is someone from the library preservation department principally responsible for archives preservation planning and monitoring. No blended solutions between the two departments were indicated in the survey comments either, not in 1995 and not in 2006. Archives still “go it alone.”

The preservation planning responsibility data may further tell a story when compared to data about the apparent, but modest growth of library preservation departments (question #17, 2006), the status of budgets for preservation supplies and services (question #14, 2006), and the growth of professional education in preservation administration (question #21, 2006). Question #17 asked, “Does your university library include a department or individual staff dedicated to managing and implementing a library preservation program?” The 2006 data shows an upswing in responses, 78 percent, as opposed to 63 percent in 1995, indicate they have such a department (a 15 percent growth in positive responses). With the 44.7 percent response rate, it is difficult to draw the conclusion that more library preservation departments have been created; however, the data does seem to indicate some kind of increase in commitment to library preservation. Libraries with budgets designated for preservation supplies and services rose by 10.9 percent, so at least we know libraries are not ceasing funding in these two areas—they remain stable (question #14). In addition, the amount of expertly educated preservation-related staff is rising slightly. Data from question #21 indicates that employees with specialized graduate preservation degree rose 10.5 percent (16.4 percent, up from 5.9 percent), and employees with graduate level preservation courses within their degree program rose 15.3 percent (38.4 percent, up from 23.1 percent). Again, we emphasize the relatively minor nature of this growth in employees with advanced preservation education. It remains
that only 16.4 percent (or one out of 6.3) of ARL libraries responding to the survey have a preservation administrator with a specialized graduate degree in preservation administration. The good news is that there is modest growth in employees with some level of graduate education in preservation—about one out of every 2.71 responding ARL libraries (38.4 percent) has an employee with this education. The general trend to conclude from this data is that library commitment to preservation, demonstrated by some educated staff and some basic financial resources, is stable to slightly rising in the aggregate during the past ten years.

For the authors’ purposes, the question becomes: is this stable to small growth in library preservation in the past ten years positively impacting archives departments? First, one more key piece of data should be examined—archives and their administrative placement. Data from question #16 (2006) further indicates that archives units at universities are moving increasingly to administrative placement in libraries and, in theory, should benefit from library resources, services, and expertise. The reporting lines for archives units continue to coalesce around libraries at the director and assistant director levels. Archives units reporting to non-library university administrators fell 6.4 percent (down from 11.7 percent to 5.3 percent). Concurrently, archives units reporting directly to library directors went up 9.6 percent (36 percent, up from 26.4 percent), and went up 10.8 percent with assistant library directors (38.7 percent, up from 27.9 percent). Archives units reporting to library department heads went down 4.4 percent (from 19.1 percent to 14.7 percent). Today, 89.4 percent of all respondents are reporting somewhere within the library organization.

To discern whether there has been small growth in library resources dedicated to preservation, additional data gathering and study needs to be undertaken. This is not necessarily the objective of the current survey. However, from the current survey data collected, we can surmise that ARL libraries’ commitment to preservation—in finances, personnel, and overall institutional priority—has at least remained stable. Hence, we would hypothesize that, after ten years, collaboration between library preservation departments and archives departments would find a way to occur. With the small exceptions detailed above in our data interpretation and analysis, the data suggests that overall collaboration between library preservation and archives departments is not occurring; it remains utterly elusive.

Professional Divides

Ideally, the same constructs that support book preservation in research libraries should also support archives preservation. That they commonly do not is both noteworthy and regrettable. It is regrettable because archival collections are critical to scholarship and people’s overall understand-
ing of history and culture. It is also noteworthy because the ARL membership defined the need for preservation in research libraries many years ago. How were archival collections left out of that enterprise?

One explanation involves the genesis of libraries and archives as cultural repositories and the evolutionary stretch of their separate professional climb. When compared alongside each other, the trajectories of development in the fields of library and archive science have proceeded in tandem but along distinctly separate paths and in accordance with substantive differences organic to their separate mandates. Although the fundamental missions of library and archival science are akin to one another, the material aspects of their focus diverge and divide along biases that form the basis of their respective occupations. One clear departure in their paths is evident in the concept of preservation that developed within the practices of these two sciences.

What becomes known in comparison is that in the very impetus to collect, preservation is more basic to the notion of archives, than it is to libraries. Frangakis and Ward (1995) present the early archival concept of preservation as though part of a professional ethos, one that “implied merely the identification and acquisition of documents, salvation from destruction by virtue of materials’ being assumed into a repository” (pp. 377–378). Archivist Richard J. Cox (1992) affirmed this belief, too, when he said, “‘preservation’ was used repeatedly to summarize all archival endeavors” and, in fact, “for many years preservation for American archivists meant little more than bringing records with archival value into the repository” (p. 228–229).

Libraries, on the other hand, have traditionally served a primary mission to collect and make accessible resources specific to the needs of their constituency. Preservation follows as an adjunct to access; it ensures the continuum of usability for a shared resource. Unlike archives, the function of preservation in libraries is subordinate to the principle concern for dissemination in the forms of access and use. For libraries, this juxtaposition of access and preservation is awkward, yet inextricably linked. There is, indeed, an inherent paradox between access and preservation, explains Michèle Cloonan (2001), but preservation does not equal access: “preservation is preservation, and access is access” (p. 240). Charles Dollar (1992) points out that this is true most distinctly in the physical realm where a carrier, for example, paper, or microfilm, bears the information and must be preserved (p. 67). However, in regards to electronic information resources, Dollar observes that “an emphasis on the carrier of information offers little useful guidance . . . The preservation of electronic records requires shifting the emphasis from preservation of the information carrier or physical storage media to the preservation of access to information electronically captured and stored” (p. 67). It was in this context that Pat Battin asserted that preservation equals access, and this notion was
subsequently misconstrued to pertain to all materials (Cloonan, 2001, p. 240). Cloonan separates access and preservation and, although she does not further distinguish the primacy of one over the other, the history of libraries strongly points to the primacy of access.

T. R. Schellenberg, the father of modern archives management in the United States, devoted the first two chapters in his 1965 book, *The Management of Archives*, to the topics of library methodology and archives methodology. There, he illuminates the essential differences between archives and libraries and provides a historical context that makes plain the root of the professional divide between them. As others have observed, the division stems primarily from the nature of the materials and the purposes of acquisition. Summarizing a more lengthy delineation of their differences, Schellenberg (1965), states that “librarians are mainly concerned with publications and archivists are mainly concerned with records” (p. 5). Forty years later, the professional divide between libraries and archives is described similarly by Helen Forde (1997). Speaking as an archivist she says:

The differences between us are largely to do with the physical differences of the material which we hold and the position of that material in terms of its final destiny—destruction or survival. . . . Both [library and archive] resources deal with information, but at different stages of its development. Archival information is primary information, but not current information—or rarely so. It is expected to be at least 30 years old, selected but undigested; it has been chosen for its evidential value, but it has not been edited or turned into an alternative format. Library information . . . curiously, is regarded as current (which it may be in comparative terms) but it has already been processed in most cases, and the built-in timescale of delay, through publication of serials or monographs, is both expected and tolerated. . . . [E]ach acquisition has some form of protection such as a cover. . . . For most libraries much of this material will be new. . . . Archival material, by contrast, arrives frequently in . . . insubstantial folders, on variable types of paper, already used and possibly damaged, and with a long term survival expectancy. . . . Another difference in perception stems from the unique character of archival material and the apparent ability to replace library material. (pp. 530–532)

James Gregory Bradsher (1988) provides further context and distinguishes the difference between libraries and archives in the statement:

Books in a library or items in a historical manuscript repository are “collections” of isolated pieces that have been put in some sort of logical order. Archives, on the other hand, are “accumulations” and their arrangement is determined as they grow, not afterwards. (p. 7)

In summary, preservation clearly has primacy in the very act of archiving that does not exist in the context of libraries where the preservation function is subordinate to the primacy of access to collections. Considered from this perspective, it is not surprising that preservation
denotes something different within the two settings and, perhaps, this dis-
juncture explains why collaboration between the archives and preserva-
tion departments in ARL institutions has not emerged naturally. In order
to move forward and redress this inconsistency within the ARL institu-
tional mission, the level and character of collaboration between both de-
partments must be considered in light of the breaches noted above. Most
importantly, the vocabulary of collections care and the meaning assigned
to preservation must co-exist harmonically, on common ground, to ac-
commodate partnership. This is not so difficult a task. Rather it requires
understanding, openness, commitment, and a unified vision—a task not
unfamiliar to ARL libraries.

DEVELOPMENT OF PRESERVATION PROGRAMS IN
ARL LIBRARIES

Walters (1998) identified 80 percent of ARL libraries with preserva-
tion programs (p. 160). A key catalyst in the formation of preservation
programs in ARL libraries was the Preservation Planning Program (PPP).
Administered within ARL’s Office of Management Studies (OMS) and
funded by the National Endowment of the Humanities (NEH), the pro-
gram was an “assisted self-study” program directed by Pamela W. Darling.
Planning for the program began in 1979, led by Darling and an ARL ad-
visory committee, and in 1983, the ARL/OMS published its first edition
of Preservation Planning Program: An Assisted Self-Study Manual for Libraries,
accompanied by a separate volume entitled, Preservation Planning Program:
Resource Notebook. Both were published again in an expanded version in
1987. The study manual contained a blueprint for institutional preserva-
tion planning and the resource notebook contained articles on diverse
preservation program elements to support the planning process. The
third essential ingredient in the program was a series of on-site consulta-
tions with experienced preservation professionals to help guide an insti-
tution’s staff through the planning process. As stated in the 1987 edition
of the manual,

The Preservation Planning Program Manual is designed primarily as
a guide for libraries undertaking a formal study of preservation needs
as a foundation for planning programs to meet those needs. It is based
on the “assisted self-study” process and presupposes a library staff large
enough to permit the assignment of about two dozen people to the job.
Most of these will be involved an average [of] five or six hours per week
for a two or three month period, with a smaller team coordinating the
study over four to six months. The Office of Management Studies, as
part of its Academic Library Program, will provide consultants on a fee
basis to libraries wishing to use the Preservation Program materials in
this formal “assisted self-study” manner. (Darling, 1987, p. iii)

With a sound construct, internal commitment and stable external sup-
port, participating ARL libraries succeeded in internalizing a systematic,
library-wide approach to preservation determined to insert itself holistically into the institutional mission. “To what purpose the acquisition, cataloging and maintenance of vast collections if the materials themselves will rot in half a lifetime?” the manual asks (Darling, 1987, p. 2). The manual makes clear that the PPP grew out of a concern for acidic book paper, but the intent was to develop comprehensive programs, moreover, to “incorporate technical and procedural information about preservation in a structured planning process leading to the phased development of a comprehensive preservation program” (p. 3). The accomplishments and momentum of the PPP were amazing, but, in retrospect, those efforts resulted in successful, healthy preservation management programs primarily for libraries’ book collections. Unfortunately, that success did not extend its reach to archival collections even within their own domain.

The lack of preservation planning and management extended to archival and special collections is abundantly clear in studies conducted between 1995 and 2006. In addition to the Walters study in 1995 and the De Stefano and Walters study in 2006, this conclusion is also supported by another more general survey of special collections conducted by ARL in 1998 and published in 2001 (Panitch, 2001). A high response rate of 80 percent provided ARL with a fairly accurate snapshot of the “issues facing special collections at the dawn of the 21st century” (p. 3). Among other things, the results raised questions about whether preservation was adequately being addressed. In the executive summary, Panitch (2001) reports on preservation activities in special collections.

There is apparent dissonance between subjective ratings and reported activity. One-quarter to one-half of those libraries reporting that their programs were making progress or holding steady on the conservation of special collections also report no conservation or repair treatment of special collections materials in 1996–97 [the year studied]. More than a quarter of all institutions had no staff time at all devoted to conservation or repair of special collections materials, and contracted services were not generally being used on a large or comprehensive scale. Over a third of all institutions reported inadequate temperature and humidity control for all or most special collections facilities (p. 8–9).

Likewise, institutions were “less optimistic about reformatting operations for special collections materials” (p. 9). The results led Panitch to observe, “special collections materials may, in fact, not be receiving the preservation attention they require” (p. 9).

The “dissonance between subjective ratings and reported activity,” identified in the ARL survey, may have been the result of adverse characteristics within the survey methodology, at least with respect to the preservation portion of the survey. Each ARL library was limited to one special collections survey form, even where multiple special collections and archives were held in separate repositories, and respondents were instructed
to combine data for all collections. The survey was directed to the highest level authority overseeing all special collections. This is hardly ideal and had to have been extremely difficult for respondents. The subjectivity of the questions asked of professionals not necessarily qualified to properly access preservation needs and practices across diverse collections was not likely to yield useful data. Confusion resulted in confused results. For example, the survey asked respondents to rate the “perceived effectiveness” of their preservation/conservation programs for special collections in terms of “making progress,” “holding steady” or “losing ground.” Panitch observed that “8 of the 42 institutions making progress on conservation and seven of the 35 institutions holding steady had no FTE staff devoted to special collections conservation and repair” (p. 55).

David Stam (2001) registered concern over this aspect of the data in his keynote speech at a special ARL symposium: “It seems to me counterintuitive that 87% of respondent’s should claim that they are progressing or holding steady on conservation, when we know from elsewhere in the survey that many are adding collections which bring new preservation problems: manuscripts and archives acquired as gifts, video and film collections of volatile materials, sound recordings, and other materials that must be preserved if they are to be heard or used. Perhaps ‘holding steady’ was the misleading phrase, if it meant no more than coping along as we always have” (p. 4). Stam’s comments highlight the lack of preservation policies, planning, and management, for both existing and new acquisitions, and affirm the conclusion presented by Walters (1998) that “archives generally are not benefiting from the expertise found in library preservation departments [in ARL libraries]” (p. 175–176).

The efforts of numerous archivists acting on behalf of their collections should not be discounted and it is not the purpose of the analysis herein to criticize the progress and achievements of untold preservation efforts administered in archives. They are prodigious and highly valued. The emphasis, here, is on the lack of a full array of the programmatic elements that traditionally support the preservation of book collections, not the typically ad hoc approach archivists must dutifully practice. Even where conservation treatments, for example, are methodically practiced, as Forde (1997) accurately points out, “dependence on conservation strategies alone is insufficient to cope with the growing need to deal with material in bulk, whether in the form of books or files” (p. 533). While ARL libraries with preservation programs may include conservation treatment of archival materials and, perhaps, environmental monitoring of archival storage areas within their programs, strategic, comprehensive preservation management of archival collections remains starkly neglected within most ARL archives. In too many instances, the responsibility for preserving archival collections in ARL libraries is isolated and rests solely with the archivist; it is not a community-based approach that fosters a shared or
blended responsibility between the archivist and the library preservation professional.

Within most ARL libraries, this current division of labor is insufficient to address the level of preservation needs within most archival units. The outcome of this partition will be the unintended and unfortunate loss of unique historical materials of all formats within ARL libraries. Harkening back to the words of the 1987 PPP manual, we ask: “To what purpose the acquisition, cataloging and maintenance of vast collections if the materials themselves will rot in half a lifetime?” (Darling, 1987, p. 2).

**Support for Preservation Program Development in Archives**

Rationales for preservation program development in archives have evolved separately from those of the library community. Building these rationales largely upon the nature of the collections, archivists have built a common understanding of preservation and conservation principles and share them in their professional literature. Mary Lynn Ritzenthaler’s book, *Preserving Archives and Manuscripts*, is a first-rate example. Published first in 1983, and again in 1993, by the Society of American Archivists (SAA), it embodies the definitive guide for addressing the preservation needs of archival materials both at the collection and item levels in clearly articulated, practical detail. Ritzenthaler addresses the need for planning and management of preservation and, even more specific to the argument contained herein, suggests, “archives that function as a department within a university library or museum may interact with an institution-wide preservation unit” (p. 16). While some value of acting collaboratively is implied in that statement, little has come of it.

Dating back to the 1970s, preservation education for archivists has taken the form of workshops offered through the Society of American Archivists (SAA) or other regional professional archival organizations. Early workshops focused primarily on conservation treatments. In the 1990s, however, ad hoc and piecemeal approaches to preservation were recognized as insufficient and the need for a more holistic approach to preservation management took hold. Evelyn Frangakis and Christine Ward (1995) published an essay that accounted for “the changing emphasis in archival preservation education” (p. 376). They examined the course of preservation and conservation workshops offered for archivists beginning in 1978 and culminating in the three-year, NEH-funded Preservation Management Training Program (PMTP) for archivists offered from 1992 to 1994. The latter was a joint effort between the NEH and SAA to develop “comprehensive, systematic preservation programs across the United States” (Frangakis & Ward, 1995, p. 383).

The PMTP was an ambitious effort to build a cadre of archivists equipped with preservation management skills developed during an in-
A tensive series of four workshops offered sequentially over a four-month interval (Frangakis & Ward, 1995, 384). An experienced faculty was carefully chosen and participants were selectively admitted to the program based on specific criteria. According to Frangakis and Ward, “the SAA recognizes that both individual and institutional commitment are key to the success of the program,” thus, institutions were required to “sponsor” individuals and “only one participant from any given repository was selected” (p. 386). Institutions were expected to have the infrastructure and capacity to support a preservation program and participants were expected to “have the authority to implement that program” (p. 385). Participants were required to draft five-year preservation plans for their institutions at the conclusion of the workshop. While NEH subsidized the costs, the participant’s institution paid for the applicant’s registration, meals, and instructional materials (p. 386).

The hope was that the participants in the program would “serve as the future leaders of archival preservation through implementation of their institutional programs” (Frangakis & Ward, 1995, pp. 388–389). When the three-year program finished, archivists, such as Walters (1995), looked forward with anticipation to the development of a group of qualified archivists, noting, “only time will tell whether the PMTP has created the critical mass necessary to shift archives away from ad hoc conservation activities and toward coordinated programs of preservation management” (p. 426).

The intent of the PMTP was very similar to the objectives of the ARL/OMS PPP: to establish preservation management programs that were holistic in their administration with widespread acceptance within the archival institution. It is tempting to compare the outcomes of these two similar planning projects, but the PMTP was directed at a broad, diverse community of archivists, whereas the ARL/OMS PPP was more closely focused within the confines of its membership. Considering the absence of well-developed and comprehensive preservation management programs in ARL member archives, as measured by the two preservation surveys in 1995 and 2006, neither planning tool effectively permeated the archives of the ARL to assist archivists in the systematic care and handling of their collections.

Collaborations:
Archives and Preservation Departments

Libraries and archives are conceived of and composed very differently, and each assigns a separate context and understanding to preservation; this makes collaboration between them counter-intuitive, but not impossible. Helen Forde (1997) warns that the “differences between libraries and archives, highlight the reasons why solutions are not always applicable to both” (p. 533). It is important to heed this caveat because it underscores
the inherent complexities likely to threaten a successful alliance. Indeed, such a relationship will demand true collaboration to succeed.

Librarians must begin by understanding the daunting, voluminous nature of modern archival collections that confound preservation management efforts. Archivist James M. O’Toole (1989) interrogated “the idea of permanence” with great insight, and his observations assist in understanding the phlegmatic development of preservation programs in archives. As awareness of the magnitude of impermanence grew in the 1960s, O’Toole speaks of a “steadily gloomier tone” among archivists. “Virtually everywhere in the profession there was a subtle but steady retreat from the idea of physical permanence as archivists had come to understand it” (p. 21). In his thoroughly researched essay he concludes, “the idea of permanence as it is understood by archivists has changed over time, passing from an unattainable desire to an absolute value within the realm of achievement to an extremely relative notion of little clarity” (p. 23). It is as though archival collections themselves resist manageable concepts for preservation; but, in truth, what is missing are clearly defined collection management strategies akin to what is found in ARL libraries. Archivists have been alone too long with this management burden. Nowhere is there more expertise to build upon than in ARL libraries with established preservation programs.

Looking back at the absence of collaboration between archives and preservation departments in ARL libraries, Walters (1998) stated preemptively that his survey “was based on the assumption that these two units have many opportunities to interact” (p. 171–172). It is true, “they share similar elements in their missions, perform similar preservation operations in specific areas, and in the majority of cases, are both administratively placed within the library organization” (p. 172). What they do not share, however, is a similar context for preservation; they do not share the same perspective of format; they do not share similar education and training for preservation; nor has any common ARL mandate fostered collaboration and collapsed the walls between them. It is not surprising that the levels of collaboration between archives and preservation departments were found relatively unchanged in the follow-up survey (De Stefano & Walters, 2006).

The culmination of this inquiry forms the basis of the authors’ broad recommendation to foster collaboration between archives and preservation departments. Further, these two units within individual ARL institutions need more than opportunities to interact. In order to fully collaborate they need policies, planning, and mutually agreed upon management structures. It is precisely, here, at this juncture, that library and archives professionals within the ARL membership can share responsibilities and expertise to construct new paradigms and reduce the loss of valuable cultural and research collections.
Conclusion: Creating “collaboration-ready” Archives and Preservation Departments

Through education, reformed practices, and collaboration, preservation program planning and management in the archives of ARL libraries need no longer be an illusive ideal. Preservation and archive professionals need their graduate education programs to instill in them the context and skills needed to integrate archival processes and preservation management effectively and efficiently. Workshops are not enough to cultivate a proficiency in preservation decision making, however; education alone cannot improve preservation management in archives. A conscientious effort to reform archival processing functions needs to be undertaken. Processing functions must strictly follow disciplined collecting, appraisal, and preservation policies. Christine Ward (2000) provides an excellent outline of preservation program planning for archives and stresses the importance of the “archival context” (pp. 47–48). She states, “Every institution should have a collecting policy that clearly states the scope of collecting and the criteria employed to identify archival records.” Further, she continues, “Appraisal analysis should include a review of preservation needs . . . Preservation planning begins with appraisal” (p. 47). Even more pointedly, Walters (1996) translates the idea of integrating the appraisal function with preservation decision making in terms of actual appraisal methods, such as “documentation strategy” and “macro-appraisal” (pp. 330–333). Preservation administrators need to understand these methodologies to participate in the preservation management dialogue. The grounds for doing so are quite fertile—in the literature. The next step is to develop models that ARL libraries can practice. Collaboration between archivists and library preservation professionals must preface such an alliance and be guided by the missions, goals, and capabilities of ARL libraries. All should commit to the hypothesis that working closely together will result in a more robust archival preservation program, replete with more staff and financial resources and the improved outcome of more stable, long-lasting archival collections.

Epilogue: A List of Essential Actions Steps

• Preservation administrators need more archives-specific education to advance strategic management programs to preserve archival collections. They need to become familiar with the archival mission, its principles, challenges, and practices in order to effectively assist archivists in their work.
• Preservation planning and management must be integrated more strictly within all archival functions, including collection development, acquisition, appraisal, re-appraisal, and deaccessioning techniques.
• An ARL-assisted, “self-study” planning initiative is needed to develop
program management models for healthy, productive, and sustained collaborations between archives and preservation departments.

**APPENDIX A**

1995 ARL Archives & Manuscripts Repositories Preservation Activities Survey Tabulated Results

1. Is the storage area of your archives equipped to provide controlled temperature and humidity (+/-3°F and +/-5% relative humidity)? N=133

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>93</td>
<td>40</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>78</td>
<td>55</td>
</tr>
</tbody>
</table>

2. Have any of the following types of equipment been used in the past year to monitor the environment of the storage areas of your archives? N=135

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermometer</td>
<td>63</td>
<td>72</td>
</tr>
<tr>
<td>Hygrometer</td>
<td>38</td>
<td>97</td>
</tr>
<tr>
<td>Recording hygrothermograph</td>
<td>84</td>
<td>51</td>
</tr>
<tr>
<td>Sling psychrometer</td>
<td>38</td>
<td>97</td>
</tr>
<tr>
<td>Temperature/Humidity data logger</td>
<td>33</td>
<td>102</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

3. Within the past two years have you conducted a holdings survey of the majority of your archives to identify potential preservation problems? N=136

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38</td>
<td>98</td>
</tr>
</tbody>
</table>

3a. If yes, have any of the findings from the survey resulted in actions such as rehousing or reformatting deteriorated items? N=38

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33</td>
<td>5</td>
</tr>
</tbody>
</table>

4. Please indicate which of the following holdings maintenance actions are routinely carried out (Circle all that apply). N=136

<table>
<thead>
<tr>
<th>Action</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place holdings in acid-free folders or containers</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>Remove, copy, or segregate newsprint or highly acidic paper</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>Remove or segregate photographic media</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>Remove or replace rusted or damaged fasteners</td>
<td>127</td>
<td></td>
</tr>
<tr>
<td>Copy deteriorated items</td>
<td>119</td>
<td></td>
</tr>
<tr>
<td>Other action</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

---

5. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the holdings maintenance actions mentioned in question 4. N=135

1. Library preservation dept.
121. Performed internally by archives staff
7. Archives staff trained by library preservation dept.
0. Contracted, external preservation service vendor
6. Other

6. Does your archives have a written disaster preparedness and recovery plan in case of fire, flood, or other disaster? N=134

77 yes 31 no 26 in process

7. Please indicate which fire detection/suppression systems are present in your main storage areas.

<table>
<thead>
<tr>
<th>System</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke detectors</td>
<td>111</td>
<td>24</td>
</tr>
<tr>
<td>Fire detectors</td>
<td>74</td>
<td>61</td>
</tr>
<tr>
<td>Fire extinguishers</td>
<td>123</td>
<td>12</td>
</tr>
<tr>
<td>Wet pipe sprinkler system</td>
<td>42</td>
<td>93</td>
</tr>
<tr>
<td>Dry pipe sprinkler system</td>
<td>14</td>
<td>121</td>
</tr>
<tr>
<td>Halon gas system</td>
<td>23</td>
<td>112</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

8. Does your archives have written policies and procedures regarding any of the following? (Circle all that apply). N=123

95 Document handling procedures
98 Photocopying procedures
96 Reading room monitoring
94 User identification procedures
13 Other

9. How is any instruction in handling documents given to users of your archives? (Circle all that apply). N=136

59 Briefly during use
118 Briefly before use
25 In workshops/classes
30 Other
4 None of the above
10. Does your archives have written procedures for selecting documents for any of the following conservation processes? (Circle all that apply). N=134

17  Reformatting on microforms
14  Replacing deteriorated originals
 7  Deacidifying paper documents
18  Encapsulation
14  Dry clean surface of documents
 3  Lamination of paper documents
12  Other conservation treatments
101 None of the above

11. Please indicate which of the following conservation processes are routinely carried out (Circle all that apply). N=136

51  Dry clean surface of documents
65  Basic mending and minor repairs
22  pH testing
28  Deacidifying paper documents
71  Encapsulation
 3  Lamination
24  Other conservation treatments
40  None of the above

12. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the conservation processes listed in question 11. N=124

35  Library preservation dept.
62  Archives dept.
 4  Archives staff trained by library preservation dept.
 4  Contracted, external preservation service vendor
19  Other

13. During the past two years has your archives reproduced any holdings on microformats?

97  yes  38  no

13a. If yes, please indicate which of the following units carry out reformatting procedures onto microforms. N=97

67  External microforms service vendor
18  Library preservation dept.
14  Archives dept.
18  Other
14. Does your archives have a specific annual budget for the purchase of preservation supplies/services? N=133

   69 yes   64 no

15. Please indicate which ONE of the following persons is principally responsible for maintaining preservation planning and monitoring in your archives. N=135

   8 Library preservation dept. representative
   22 Designated preservation officer from archives staff
   58 Archives dept. head
   23 Other archives staff
   24 Other

16. Please indicate the administrative placement of your archives within your university (who do you report to).

   16 University administration (president, vice president, provost)
   36 Library director
   38 Assistant library director
   26 Library dept. head
   19 Other

17. Does your university library include a department or individual staff dedicated to managing and implementing a library preservation program? N=133

   Preservation dept.  84 yes  49 no
   Preservation staff, but not organized into separate dept.  20 yes  113 no
   Other  10

17a. If yes to any portion of Question 17, what is the total full-time equivalent (FTE) of the following classifications of staff in the library preservation department/unit? N=69

   Preservation professionals  235.58
   Paraprofessionals  380.68
   Clericals  112.50
   Student assistants  132.45
   Volunteers  10.3
   Other  112
18. How serious are the preservation problems that you confront in your daily work? On the scale below, please circle the number that best expresses your personal judgment. N=135

<table>
<thead>
<tr>
<th>Minimal</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

(3.19 average response)

19. How successful and satisfied are you with the preservation management and activities in your archives? On the scale below, please circle the number that best expresses your personal judgment. N=138

<table>
<thead>
<tr>
<th>Minimal</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

(2.92 average response)

20. What is the total full-time equivalent (FTE) of the following classifications of staff in your archives? N=129

- Archivists 485.71
- Paraprofessionals 243.26
- Clericals 124.20
- Student assistants 264.55
- Volunteers 80.87
- Other 40.30

21. Has the person(s) responsible for overseeing preservation management and implementation in your archives received any specialized preservation training? (Circle all that apply). N=134

- 8 Specialized graduate preservation degree
- 31 Graduate level preservation courses within graduate degree program
- 100 Workshops/seminars
- 12 Internship
- 23 Other training
- 14 None of the above

22. Please indicate the total volume and number of paper-based archival and manuscript collections in your archives. For reporting purposes, one cubic foot equals one linear foot. Please estimate the requested figures if you are not sure.

- 1,995,744 Cubic/Linear feet N=120
- 157,572 Collections N=109
23. Please indicate the total volume of microfilm and microfiche holdings in your archives.

<table>
<thead>
<tr>
<th>Microform Type</th>
<th>Volume</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reels of microfilm</td>
<td>252,063</td>
<td>101</td>
</tr>
<tr>
<td>Microfiche sheets</td>
<td>888,809</td>
<td>71</td>
</tr>
</tbody>
</table>

**APPENDIX B**

2006 ARL Archives & Manuscripts Repositories Preservation Activities Survey Tabulated Results

1. Is the storage area of your archives equipped to provide controlled temperature and humidity (±3°F and ±5% relative humidity)? N=76

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>55</td>
<td>21</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>49</td>
<td>25</td>
</tr>
</tbody>
</table>

2. Have any of the following types of equipment been used in the past year to monitor the environment of the storage areas of your archives? N=74

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermometer</td>
<td>42</td>
<td>18</td>
</tr>
<tr>
<td>Hygrometer</td>
<td>32</td>
<td>22</td>
</tr>
<tr>
<td>Recording hygrothermograph</td>
<td>44</td>
<td>18</td>
</tr>
<tr>
<td>Sling psychrometer</td>
<td>16</td>
<td>29</td>
</tr>
<tr>
<td>Temperature/Humidity data logger</td>
<td>42</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

3. Within the past two years have you conducted a holdings survey of the majority of your archives to identify potential preservation problems? N=75

<table>
<thead>
<tr>
<th>Conducted survey</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>55</td>
</tr>
</tbody>
</table>

3a. If yes, have any of the findings from the survey resulted in actions such as rehousing or reformatting deteriorated items? N=34

<table>
<thead>
<tr>
<th>Result</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

4. Please indicate which of the following holdings maintenance actions are **routinely** carried out (Circle all that apply). N=76

<table>
<thead>
<tr>
<th>Action</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place holdings in acid-free folders or containers</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>Remove, copy, or segregate newsprint or highly acidic papers</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Remove or segregate photographic media</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>Remove or replace rusted or damaged fasteners</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Copy deteriorated items</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>Other action</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>
5. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the holdings maintenance actions mentioned in question 4. N=76

<table>
<thead>
<tr>
<th>Selection</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library preservation dept.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Performed internally by archives staff</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>Archives staff trained by library preservation dept.</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Contracted, external preservation service vendor</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

6. Does your archives have a written disaster preparedness and recovery plan in case of fire, flood, or other disaster? N=76

<table>
<thead>
<tr>
<th>Selection</th>
<th>Yes</th>
<th>No</th>
<th>In process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>65</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>65</td>
<td>0</td>
</tr>
<tr>
<td>In process</td>
<td>0</td>
<td>65</td>
<td>11</td>
</tr>
</tbody>
</table>

7. Please indicate which fire detection/suppression systems are present in your main storage areas.

<table>
<thead>
<tr>
<th>System</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke Detectors</td>
<td>70</td>
<td>5</td>
</tr>
<tr>
<td>Fire Detectors</td>
<td>53</td>
<td>14</td>
</tr>
<tr>
<td>Fire Extinguishers</td>
<td>70</td>
<td>3</td>
</tr>
<tr>
<td>Wet Pipe Sprinkler System</td>
<td>37</td>
<td>26</td>
</tr>
<tr>
<td>Dry Pipe Sprinkler System</td>
<td>10</td>
<td>37</td>
</tr>
<tr>
<td>Halon Gas System</td>
<td>8</td>
<td>36</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

8. Does your archives have written policies and procedures regarding any of the following? (Circle all that apply). N=75

<table>
<thead>
<tr>
<th>Selection</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document handling procedures</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Photocopying procedures</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Reading room monitoring</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>User identification procedures</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

9. How is any instruction in handling documents given to users of your archives? (Circle all that apply). N=76

<table>
<thead>
<tr>
<th>Selection</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefly during use</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Briefly before use</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>In workshops/classes</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
10. Does your archives have written procedures for selecting documents for any of the following conservation processes? (Circle all that apply). N=68

- 8 Reformatting on microforms
- 17 Replacing deteriorated originals
- 5 Deacidifying paper documents
- 14 Encapsulation
- 10 Dry clean surface of documents
- 1 Lamination of paper documents
- 18 Other conservation treatments
- 44 None of the above

11. Please indicate which of the following conservation processes are routinely carried out (Circle all that apply). N=75

- 36 Dry clean surface of documents
- 46 Basic mending and minor repairs
- 14 pH testing
- 10 Deacidifying paper documents
- 46 Encapsulation
- 1 Lamination
- 37 Other conservation treatments
- 14 None of the above

12. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the conservation processes listed in question 11. N=72

- 34 Library preservation dept.
- 32 Archives dept.
- 2 Archives staff trained by library preservation dept.
- 2 Contracted, external preservation service vendor
- 2 Other

13. During the past two years has your archives reproduced any holdings on microformats?

- 32 yes  44 no

13a. If yes, please indicate which of the following units carry out reformatting procedures onto microforms. N=34

- 25 External microforms service vendor
- 7 Library preservation dept.
- 1 Archives dept.
- 6 Other
14. Does your archives have a specific annual budget for the purchase of preservation supplies/services? N=75

46 yes 29 no

15. Please indicate which ONE of the following persons is principally responsible for maintaining preservation planning and monitoring in your archives. N=76

12 Library preservation dept. representative
17 Designated preservation officer from archives staff
35 Archives dept. head
11 Other archives staff
1 Other

16. Please indicate the administrative placement of your archives within your university (who do you report to).

4 University administration (president, vice president, provost)
27 Library director
30 Assistant library director
11 Library dept. head
3 Other

17. Does your university library include a department or individual staff dedicated to managing and implementing a library preservation program? N=76

Preservation dept. 51 yes 16 no
Preservation staff, but not organized into separate dept. 16 yes 13 no
Other 10

17a. If yes to any portion of Question 17, what is the total full-time equivalent (FTE) of the following classifications of staff in the library preservation department/unit? N=62

Preservation professionals 53
Paraprofessionals 49
Clericals 24
Student assistants 40
Volunteers 14
Other 7
18. How serious are the preservation problems that you confront in your daily work? On the scale below, please circle the number that best expresses your personal judgment. N=76

   Minimal   Moderate   Severe
                  1     2     3     4     5
(2.76 average response)

19. How successful and satisfied are you with the preservation management and activities in your archives? On the scale below, please circle the number that best expresses your personal judgment. N=74

   Minimal   Moderate   Severe
                  1     2     3     4     5
(3.18 average response)

20. What is the total full-time equivalent (FTE) of the following classifications of staff in your archives? N=76

   Archivists     73
   Paraprofessionals     60
   Clericals       33
   Student assistants     67
   Volunteers       27
   Other             14

21. Has the person(s) responsible for overseeing preservation management and implementation in your archives received any specialized preservation training? (Circle all that apply). N=73

   11 Specialized graduate preservation degree
   28 Graduate level preservation courses within graduate degree program
   58 Workshops/seminars
   11 Internship
   27 Other training
   3 None of the above

22. Please indicate the total volume and number of paper-based archival and manuscript collections in your archives. For reporting purposes, one cubic foot equals one linear foot. Please estimate the requested figures if you are not sure.

   1,184,503 Cubic/Linear feet   N=75
   114,253 Collections        N=63
23. Please indicate the total volume of microfilm and microfiche holdings in your archives.

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<th>Reels of microfilm</th>
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**References**


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UNESCO’s Memory of the World Programme

Ross Harvey

ABSTRACT
UNESCO’s Memory of the World Programme is one response to the challenges of preserving cultural heritage. This paper describes its activities, indicates its relationship to other large-scale programs to promote understanding of the importance of preserving heritage, introduces the Australian Memory of the World Program as a case study, and examines some of the issues surrounding the program.

INTRODUCTION
This issue of Library Trends examines how cultural heritage preservation is changing around the world because of the stresses and levels of change caused by such things as civil unrest, natural disasters, and inequitable distribution of resources. As Tessa Morris-Suzuki (2005) notes, we are in a period of global mobility and rapidly changing media, with consequent major changes in how we think about history:

The crisis of history, then, is not a simple matter of amnesia. Rather, it reflects a profound dilemma: in an age of global mobility and multiple, rapidly changing media, how do we pass on our knowledge of the past from one generation to the next? How do we relate our lives in the present to the events of the past? Which bits of the past do we claim as our own, and in what sense do they become our property? (p. 6)

It is important that we preserve our memories, a point made by numerous authors in different contexts over many years. W. James Booth (2006), in an exploration of the relationship between memory and identity, reminds us that “memory is essential to the coherence and enduringness of the community (or person), to its boundaries and persistence, in short, to its identity” (p. xiii), and that with this come the responsibilities...
that are attached to memory. Another common theme in the discussions about why we preserve memory is that it links us to our past: “If history is civilization’s collective memory, then preservation aids memory and sustains history by linking us to the past in a persuasive way” (Cloonan, 2004, p. 36). UNESCO’s Memory of the World Programme is one response to these issues. This paper describes its activities, indicates its relationship to other large-scale programs to promote understanding of the importance of preserving heritage, introduces the Australian Memory of the World Program as a case study, and examines some of the issues surrounding the program.

What Is the Memory of the World Programme?

The Memory of the World Programme is introduced by these words:

Documentary heritage reflects the diversity of languages, peoples and cultures. It is the mirror of the world and its memory. But this memory is fragile. Every day, irreplaceable parts of this memory disappear forever. UNESCO has launched the Memory of the World Programme to guard against collective amnesia calling upon the preservation of the valuable archive holdings and library collections all over the world ensuring their wide dissemination. (UNESCO, n.d.)

It is important to recognize that the Memory of the World Programme is aimed not only at safeguarding documentary heritage judged to be valuable (a contested term that is examined later), but also at promoting both access to the selected material and awareness of the need to preserve it. Although these latter aims are often accorded less importance in countries whose library, archives, and museum systems are well developed, this relative emphasis should not be taken for granted as universal. A Latin American and Caribbean perspective emphasizes all three aspects equally in describing the Memory of the World Programme as “an international effort to safeguard the at risk documentary heritage, to democratise its access, and to raise awareness about its importance” (Vannini, 2004, p. 293).

Many of the strengths, and not a few of the problems, of the program arise from its structure, which is, therefore, described here in some detail. The basis and the primary product of the Memory of the World Programme—its raison d’être—are its registers of documentary heritage identified as being significant—of world significance for the international register, of regional significance for the regional registers, and of national significance for the national registers. To support these registers international, regional, and national committees have been established.

At the international level there is a secretariat based at UNESCO Headquarters in Paris and an International Advisory Committee (IAC), which meets biannually; a five-person bureau acts as an executive committee in the periods between the IAC meetings. The IAC has three subcommittees:
one for the register, which assesses nominations for the international register, one for technology, and one for marketing. Ray Edmondson (2005) reminds us:

From the outset the Memory of the World (MoW) Programme was conceived as a three-tier structure, with committees operating at the national, regional and international level. Regional committees would fill the space between the overarching mandate of the International Advisory Committee (IAC) and the national committees. (section 1.1)

Their role would include the development of regional registers and assisting with development of national registers, coordination of regional projects, encouraging cooperation and training within the regions, encouraging the establishment of national committees, and taking on a coordination role in publicity and awareness-raising (Edmondson, 2005, sections 1.1–1.2).

In the fifteen years of the program’s existence, there has, after an initial flurry, been little activity at the regional level. Although Latin American and Caribbean national committees were formed early in the history of the program and were responsible for registering the first five inscriptions on the international register (Vannini, 2004, p. 293) a Latin America and Caribbean regional committee was not established until 2000. It has focused on promoting the program and on training and has established a website (http://infolac.ucol.mx/mow). For the Asia-Pacific regional committee the story is “largely one of good intentions and false starts” (Edmondson, 2005, section 2.10). An initial meeting in Kuala Lumpur 1994 has been followed by only two more, in 1998 and 2005. There is no regional register for the Asia-Pacific, but there is a website (http://www.unesco.mowcap.org).

The most energetic part of the Memory of the World Programme’s structure is at the national level, although even here the successes are qualified—for instance, there appear to be national registers in only two countries, Australia and China. (The fact that I write “there appear to be” indicates the poor state of information on some of these national committees available on the UNESCO Memory of the World website and on the national committees’ websites, which can be generally characterized as minimal and out-of-date). In November 2006 there were seventy national committees listed on the program’s website. These provide a framework for coordination and mechanisms for actions by which the Programme’s aims can be met. For many countries, however, the resources and skills required for a national committee to achieve much may be too great for them to be anything more than nominal: skills include “those of selection and appraisal, publicity, fundraising, advocacy, conservation expertise, and the information technology skills necessary for the creation and maintenance of websites[,] . . . networking skills of lobbying for support
and keeping stakeholders informed and supportive” (Edmondson, 2005, section 6.5); resources are also required to support meetings, training, and promotion.

“The MoW program works on the logic that every country should ultimately have a national MoW register” and therefore maintaining credible registers is crucial to its success (Edmondson, 2005, section 6.12). The registers must be developed and maintained according to the Memory of the World Programme: General Guidelines to Safeguard Documentary Heritage (Edmondson, 2002). Each register requires a process for inviting nominations, transparent selection criteria, and an evaluative mechanism. It also needs to be accessible, desirably through a website. The publicity value of a national register is considerable, as the experience of the Chinese and Australian national committees confirms: “Inscription is sought after and valued by the nominators. Website-based registers are easily accessible and can be a means of access to the documents themselves. They can become portals for access to national heritage access where there are no alternatives” (Edmondson, 2005, section 6.15). An effective national register requires significant levels of support—a point amplified later in this paper.

A summary of the country reports given at the second Memory of the World Asia-Pacific Region meeting in the Philippines November 7–9, 2005 serves to indicate the activities and concerns of national committees. At one end of the spectrum China has a national register with eighty-four items; two provinces, Zhejiang and Heilongjiang, have established provincial registers. Four nominations from China have been selected for inclusion in the international register. At the other end of the spectrum the National Commissions for UNESCO in Vietnam and New Zealand (which has two items on the world register) are currently considering the establishment of a national Memory of the World Committee. Korea is one of the most active countries in the Asia-Pacific region, but paradoxically there is no Korean national committee for the Memory of the World Programme, its role being carried out by a subcommittee on movable cultural properties of the Korean Committee on Cultural Properties: it held regional training workshops in 2002 and 2004, and initiated in 2004 the US$30,000 UNESCO Jikji/Memory of the World Prize, which commemo rates the inscription on the world register of the Jikji, the oldest known book of movable metal print in the world and also promotes the objectives of the Memory of the World Programme. Also active in the Asia-Pacific region is the Australian committee whose activities are described below. Issues noted by these country reports are lack of awareness of the program, especially on the part of the general public, lack of training opportunities and expertise, lack of funding support, and the problems of developing joint nominations for the world register for documentary heritage of one country that is held in another country.
THE MEMORY OF THE WORLD PROGRAMME IN A WIDER CONTEXT

The Memory of the World Programme does not exist in a vacuum. The catalyst for its initiation by the Director General of UNESCO in 1992 was the deliberate destruction of the National Library in Sarajevo. More recent examples of civil unrest and its attendant stresses, with their potential for loss of documentary heritage, abound. One is the vulnerability of the records of the Truth and Reconciliation Commission in Timor-Leste, which include eight thousand submissions on human rights violations and document forced displacements, famine, and other disturbances between 1974 and 1999. These are stored at the site from which motorbikes were stolen by a large group of men carrying firearms. “The security guards at the Truth Commission have no guns and when they telephoned for help were told that nothing could be done about looting. So far the rooms containing the records have not been looted” (Cuddihy, 2006).

The progenitors of the Memory of the World Programme can be found in other UNESCO programs. The 1972 UNESCO Convention Concerning the Protection of the World’s Cultural and Natural Heritage is now well established. It was primarily developed to protect sites of natural beauty and ecological significance, such as Australia’s Great Barrier Reef and the Yosemite National Park in the United States. At the same time, international interest was also growing in the need to protect intangible cultural heritage. UNESCO promulgated the 1989 Recommendation on the Safeguarding of Traditional Culture and Folklore and ran seminars throughout the world, which evaluated how the 1989 Recommendation on the Safeguarding of Traditional Culture and Folklore had been implemented. This culminated in the 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage. In this Convention intangible cultural heritage is defined as “the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage”; these are “manifested inter alia” in various domains:

- Oral traditions and expressions, including language as a vehicle of the intangible cultural heritage
- Performing arts
- Social practices, rituals and festive events
- Knowledge and practices concerning nature and the universe
- Traditional craftsmanship (UNESCO, 2003, article 2)

The future and the success of the Memory of the World Programme is inextricably bound up in the future and the success of its intensely politicized parent organization, UNESCO (United Nations Educational, Sci-
entific, and Cultural Organization). In this regard it is worth noting the ongoing disagreement between UNESCO and the United States, which withdrew from UNESCO in 1984 “citing poor management and policies contrary to U.S. values,” but rejoined in 2002 (“Bush’s U.S./UNESCO decision lauded,” 2002). The Memory of the World’s Web site does not, however, list a national program for the United States.

**The Australian Memory of the World Program**

The Australian Memory of the World Program is one of the more energetic of the national programs and has made details of its procedures publicly available. It is, therefore, a fitting example to use here as an illustration of the strengths and weaknesses of the Memory of the World Programme as a whole and as a backdrop for the exploration of some of the issues the program faces. As Australian input into the international program has been, and continues to be, high, the experience of the Australian committee is frequently referred to by other national committees. This high profile includes Australian authorship of both editions of the program’s key procedural document, the *Memory of the World: General Guidelines to Safeguard Documentary Heritage* (Foster, Russell, Lyall, & Marshall, 1995; Edmondson, 2002). The second edition includes the terms of reference of the Australian national committee as an example of best practice. Edmondson, currently a member of the Australian national committee, chairs the Asia/Pacific Regional Committee; another Australian Committee member, Ros Russell, is a member of the Bureau of the IAC and chairs its Register Subcommittee, of which Edmondson is also a member as the nominee of a nongovernment organization. Australians have provided much of the Memory of the World Programme’s intellectual leadership from its inception and continues to do so, a recent example being workshops based on guidelines for significance. (The program for one of these workshops can be viewed on the Australian Memory of the World Program website: [http://www.amw.org.au/significance06/significance06.htm](http://www.amw.org.au/significance06/significance06.htm).)

The Australian Memory of the World Committee was founded on December 18, 2000. Like many other national programs, it is conducted under the auspices of the Australian National Commission for UNESCO which is responsible, together with the Memory of the World Programme IAC, for endorsing the Australian Memory of the World Committee’s terms of reference and its members. According to its Terms of Reference:

The Australian *Memory of the World Committee* will have the responsibility for the overall management and monitoring of the program in Australia and will:

- receive and assess nominations of documentary heritage for entry on the International and Australian *Memory of the World Registers,*
work in close cooperation with governmental and non-governmental organisations in establishing the Australian Memory of the World Register,
• maintain the Australian Memory of the World Register,
• forward nominations to the International Advisory Committee of the Memory of the World Program for entry on the World Register,
• raise the awareness of and promote the Memory of the World Program in Australia,
• encourage and attempt to gain government and private sector sponsorship for specific Memory of the World projects and activities in Australia,
• work in close cooperation with governmental and non-governmental organisations to identify and substantiate recommendations to remove entries from the Australian and World Registers,
• monitor all Memory of the World activities taking place in Australia,
• work in close collaboration with the Asian and Pacific Regional Memory of the World Committee, and
• maintain regular contact with and respond to requests from the International Advisory Committee of the Memory of the World Program. (Australian Memory of the World Committee, n.d.)

The Australian Memory of the World Committee’s members are drawn from a range of institutions and organizations to reflect “the diversity of moveable cultural heritage in Australia”; they are knowledgeable about Australia’s “cultural heritage institutions and also about the preservation and access challenges of cultural heritage material” (Howell, 2005). The eight-member committee, which meets about six times a year, in 2006 included representatives from the Australian National Commission for UNESCO, the National Library of Australia, the National Archives of Australia, the university sector, the audiovisual archiving sector, the Australian Indigenous Cultural Network and the Australian Institute of Aboriginal and Torres Strait Islander Studies, and the museum sector. There are subcommittees for Assessment, Lost and Missing Documentary Heritage, and Promotion.

The 2005–2006 annual report of the Australian Memory of the World Committee (2006) notes that “in its sixth year of operation the Australian Memory of the World Committee has succeeded in further increasing its public profile” (Discussion section). The report’s introduction states:

As the first national committee to establish its own website and to have a formalised and transparent system for selecting material for its National Register, every development made by the Australian Committee is groundbreaking work that has set the standard for other national programs. The staff at UNESCO Headquarters in Paris has been kept informed of all actions and where appropriate approval has been sought.
Major activities and achievements include the establishment of an Australian register, currently with nineteen inscriptions, based on a biennial schedule that is synchronized with the international program, so that selection of material for the Australian register leads in the following year to nominations for inclusion in the world register. Award ceremonies, at which certificates are presented by high profile Australians to the custodians of material inscribed on the Australian register, have provided a high level of publicity for the Australian Memory of the World Program. A search for lost and missing documentary heritage is being carried out by a team from Charles Sturt University (Harvey, 2003). Workshops for custodians of documentary heritage materials have been held in major Australian cities. In 2005 these provided assistance in determining significance and had the important byproduct of raising awareness of the program. An online manual has been developed that provides instruction in the preparation of applications for material to be considered for inclusion on the Australian register (Australian Memory of the World Program, 2005). The Australian Memory of the World’s Program’s website (www.amw.org.au), its principal means of communication and publicity, has been developed and maintained with considerable effort. This effort has been rewarded by a dramatic increase in hits on the website.

However, despite these achievements, achieving financial sustainability has eluded the Australian Memory of the World Program. Since 2003 its activities have been funded by a small grant, averaging A$5,000 per annum, from the Australian National Commission for UNESCO, by significantly higher amounts of in-kind support from a number of Australia’s national and state cultural institutions and its university sector (estimated at around A$40,000 per annum), and by massive amounts of volunteer effort by its unpaid committee members. A second concern of the Australian program is to raise levels of awareness of its existence and activities. As it is a relatively new program, substantial effort is still required to increase awareness and encourage participation. A third major issue is the definition of the term significance—a definition intrinsic to the Memory of the World registers, but difficult to agree upon, promulgate, and apply in practice. This issue was the focus of the workshops on significance organized by the Australian committee during 2005 and 2006. (Much of the above is based on Howell, 2005.)

Four items listed in the Australian Memory of the World Register have been inscribed in the world register: Captain Cook’s *Endeavour* journal and the Mabo Papers, both added in 2001; and the *Story of the Kelly Gang* (1906) and Convict Records of Australia, both added in 2007. Cook’s journal is “the key document foreshadowing British colonisation of Australia”; the significance of the Mabo Papers resides in their documentation of a crucial period in the history of race relations in Australia, featuring a series of battles and legal cases over the
ownership and use of land, growing awareness of racial discrimination, and the social and health problems of indigenous peoples. The issues discussed in the papers have a bearing on the rights of both indigenous peoples and the descendants of European settlers throughout Australia.

(Australian Memory of the World Program, n.d., Citation section)

The *Story of the Kelly Gang* (1906) is the world’s first feature-length film; the Convict Records record the deportation from 1788 to 1868 of 165,000 convicts from the United Kingdom to Australia.

The register includes the Cinesound Movietone Australian Newsreel Collection 1929–1975 (registered in 2003), the Displaced Persons Migrant Selection Documents 1947–1953 (2004), the 1906 film *The Story of the Kelly Gang* (2004), the National Library’s PANDORA, *Australia’s Web Archive* (2004—to date the only digital material on the register), and records of convicts transported to Australia (2006). The Australian Memory of the World Register also includes the Australian Children’s Folklore Collection (2004), possibly the world’s largest archive of children’s playground games and rhymes.

Edmondson has noted the substantial commitment required to maintain an effective national register. Much reliance is placed on volunteers, who must have the appropriate assessment skills and the ability to develop a website, on the willingness of potential nominators of items, and on mentors to encourage them. It also requires some measure of financial and institutional support (Edmondson, 2005, section 6.16). He outlines the process by which items are considered for and inscribed on the Australian register:

- Nominations are encouraged by email publicity on listserves and through short training workshops on “significance” which assist potential nominators to prepare their cases.
- Nominations are assessed by an expert subcommittee of the national Memory of the World committee, to whom it makes its recommendations.
- The national register is maintained on the committee’s website, which is sponsored by the State Library of Victoria.
- An annual public event to announce inscriptions and present certificates is sponsored by one of the major libraries or archives.
- Committee members volunteer their time; a small expense budget is provided by the National Commission for UNESCO. (Edmondson, 2005, section 6.17).

Despite its short life, the Australian Memory of the World Program acts as a benchmark for national programs in other countries. It can do this, despite limited financial support, because of the enormous goodwill and support from libraries and archives at national and state levels, and from the high levels of commitment from skilled volunteers. While other national programs have not yet achieved the same level of opera-
tion, there is evidence that much is happening, despite limited resources and other local inhibiting factors.

**Significance and Other Issues**

The success of the Australian program perhaps belies the range and severity of issues that can be identified in the Memory of the World Programme. There is considerable scepticism about the value and effectiveness of programs such as Memory of the World. Some are doubtful about whether cultural heritage institutions are influential players in long-term preservation of documentary heritage. Matthew Battles (2003), for instance, comments that:

> Much of what comes down to us from antiquity survived because it was held in small private libraries tucked away in obscure backwaters of the ancient world, where it was more likely to escape the notice of zealots as well as princes. Above all, it is this last point—the needs and tastes of private readers and collectors—that determines what survives. (p. 31)

Tara Brabazon also notes the role that individuals play, observing their valuable contribution in preserving popular culture where institutional collectors did not; there were, she indicates, “myriad alternative sites where ephemeral material was stored, such as the family home. . . . [where we might expect to find] a light sabre, toy Dalek, Duran Duran posters” (Brabazon, 2000, p. 157). While in theory there is no impediment to individuals submitting nominations to the Memory of the World registers, in practice it is highly unlikely that they would be accepted.

If we accept that cultural heritage institutions do have a role in the Memory of the World Programme, many issues remain. Some basic concepts remain undefined or inadequately defined. Digital documentary heritage poses a particular problem, apparently, to the program. To date it appears that the Australian register is the only one that contains an entry for born-digital material—the PANDORA web archive. It seems that fluid entities, those that are constantly growing or changing, such as some archives and digital collections, pose a problem. Whereas documentary heritage is perceived as fixed, intangible heritage is not. The 2003 Intangible Heritage Convention is clear that:

> Intangible cultural heritage, transmitted from generation to generation, is constantly recreated [italics added] by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. (UNESCO, 2003, article 2)

Another example is the lack of value given in some traditions to oral history. Tom Griffiths (2003) notes, in the context of Australian history:
When records are officially preserved, they often leave the locality of their origin, go to the city, become institutionalised and thereby become subject to local suspicion. For anyone schooled in the professional discipline of history, it is a shock to encounter the proud oral culture of rural Australia. In a small community, oral sources of history are often regarded as the pre-eminent means of access to the local past. (p. 141)

But the major issue faced by the Memory of the World Programme is the understanding of significance. This concept is intrinsic to the program at all levels, as displayed in its foundational principles noted in the *General Guidelines to Safeguard Documentary Heritage* (Edmondson, 2002, section 2.1.1):

The *Memory of the World* Programme proceeds on the assumption that some items, collections, holdings or funds of documentary heritage are part of the inheritance of the world, in the same way as are the sites of outstanding universal value listed in the UNESCO *World Heritage List*. Their significance is deemed to transcend the boundaries of time and culture, and they should be preserved for present and future generations and made accessible to all peoples of the world in some form.

(Another principle is that “The Programme seeks to encourage access without discrimination wherever possible” [Edmondson, 2002, section 2.1.3], but this seems inimical to the concept of selection, which is implicit in the concept of significance. This point is not explored in this paper.)

The most sustained criticism to have appeared about the role of significance in the Memory of the World Programme is by Australian conservator Robyn Sloggett (2005). She argues that while the aims of the Programme are praiseworthy, it is flawed because it is based on an inappropriate framework and tool—significance—developed in a different context for different purposes. Significance, successful in the built heritage context, is perhaps “so culturally loaded as to be, at best, an irrelevant and, at worst, a dangerous tool with which to address issues of local or distributed culture?” (p. 114). The application of significance in the Australian Memory of the World Program relies heavily on methodology developed for the museum sector and may not be readily applicable in other sectors. There are, Sloggett maintains, many potential dangers in its use. One is the appropriation of the [program for political purposes: here Sloggett makes the telling point that “the concept of world heritage, a category of democratised heritage, which is so significant as to transcend local or national boundaries, is not a benign, apolitical construct” (p. 118). Another is the difficulty of engaging across international boundaries, such as with material created in a colonial context, applicable to more than one country, and now residing outside the countries in which it was created. A third is how to address cultural value for minority cultures in a program that is based heavily on determining national significance: “Cultural value is not an attribute that
can be easily or meaningfully bestowed from beyond the culture; cultural attributes are insider knowledge. . . . [T]here are many examples where national agendas are best served by the marginalisation or negation of local cultures” (pp. 119–120). Sloggett also notes the lack of protection that registration provides and points to recent experiences with items on the World Heritage List. Perhaps, she suggests, significance is useful only as a risk assessment process assisting in determining priorities for applying resources, determining it “works against the relative and fluid way in which cultural value is often developed and ascribed” (p. 123). Sloggett allows that the Memory of the World Programme is beneficial; assisting with procuring funding and improving awareness of preservation issues, but it must address some intrinsic issues. She concludes: “Heritage is by definition local. The concept of world culture is as anachronistic and problematic as any other globalised agenda” (p. 124). No rejoinder to Sloggett’s carefully argued comments has yet appeared in print.

Another issue is that the Memory of the World Programme is not truly international. Its Eurocentric nature is noted by Edmondson in a report on the Asia-Pacific regional program. Of the 120 inscriptions in the international register in 2005, over half (63) were from Europe, with 26 from the Asia-Pacific region, 18 from the Latin America-Caribbean region, 8 from Africa, and 5 from Arab countries. At the country level, Austria had 8 inscriptions and Germany and Russia 7 each, while China had only 4 (Edmondson, 2005, section 4.2). Edmondson also pointed out a European bias in the “Guided Visits” on the MoW website, with only a handful from outside Europe (Edmondson, 2005, section 4.3), and that the program’s key working document, the General Guidelines, essential for preparing nominations for national, regional, and international registers, was not available in the languages of many countries. He suggested that the lack of a Chinese translation excludes about one-third of the population of the Asia-Pacific region from Memory of the World registration processes (Edmondson, 2005, section 6.18).

A series of structural and resourcing issues are indicated in a 2005 discussion paper produced by three people who have been active in the Memory of the World Programme since its inception (Boston, Edmondson, & Schüller, 2005). They suggest that the program has been consistently under-resourced and compare its staffing levels—two part-time staff—with those of sister UNESCO programs: its model the World Heritage List Programme has eleven staff members plus support staff, and the Intangible Cultural Heritage Programme, which began only in 2003, has thirteen staff members. The resources allocated to the Memory of the World Programme allow only a minimal level of activity. The program, they suggest, does not address many of the objectives and strategies in its guidelines: for example, its objective—“To facilitate preservation, by the
most appropriate techniques, of the world’s documentary heritage” —has to date resulted in only a small number of training workshops and pilot preservation projects (Boston, Edmondson, & Schüller, 2005, p. 3). Similarly, its strategies—identification of documentary heritage, raising awareness, preservation, and access—has had patchy results, but some successes are noted: for example, the Digital Heritage Charter (p. 6).

The Boston, Edmondson and Schüller (2005) discussion paper devotes considerable attention to structural issues (pp. 7–10), noting that the operation of the program at its various levels ranges from successful to nonexistent and suggesting that “in many cases, it is not the form that is wrong but the selection of the people” (p. 7). Changes are proposed to the program’s top-level committee, the International Advisory Committee, and its meeting protocol, its executive committee, the bureau (which they consider has stopped functioning), its Technical and Register Subcommittees (“Eurocentric”) and its Marketing Subcommittee (“a fiction: it produced a report several years ago on which no action was taken and has done nothing further” [p. 8]), increased staffing to a full-time secretariat with sufficient staff and budget, and a larger budget with more transparency about how it is allocated. The lack of an effective regional committee structure also receives attention, and a renewed focus on, and support for them is proposed. Boston, Edmondson and Schüller claim that the Memory of the World Programme lacks a forward plan, and that “strict adherence to its ‘laws’—the General Guidelines—does not seem to be part of MoW’s culture,” with the outcome that “politically expedient decisions” are undermining the program’s credibility (p. 10).

Where To From Here for the Mow Programme?

Despite apparently widespread pessimism about the future of the Memory of the World Programme, Edmondson notes that “the way ahead is not difficult to discern” (Edmondson, 2005, section 11.1) and provides a set of recommendations: a plan based on the program’s strategic directions as articulated in 2002 needs to be fully developed and implemented, the committee structure at the international level needs to be revisited, and, most important, guaranteed resources are required (Edmondson, 2005, sections 11.1–11.4).

There is in fact some evidence that new structures are emerging. In September 2006 the New Zealand Early Text Centre (NZETC) circulated a request for advice about relevant material to be included in a Pacific Island Memory of the World Register, focusing initially on the founding documents of Pacific Island nations (Mapplebeck, 2006). This register is a subset of the Memory of the World Programme’s Asia-Pacific region and it could, therefore, be argued that it represents the beginning of a new structure based on subregions. Vannini has suggested the formation
of “thematic collaboration networks” as a means of developing Memory of the World activities, such as a Human Rights Archives Network and a Slave Archives Network, which could organize training, seminars and workshops, develop digitization projects, and develop collective catalogs (Vannini, 2004, p. 300).

Although Edmondson’s comments refer specifically to structural issues, they apply more widely. For a start, there is a general and increasing awareness that cultural heritage collecting institutions are “socially constructed sites of struggle and contestation” (Sassoon, 2003, p. 42), and with this awareness comes greater willingness to ponder its implications for collectors, collections, and programs such as the Memory of the World. History is shaped by what archives collect, Joanna Sassoon (2003) reminds us, noting “the way in which archival memory is created and preserved, and the assumptions behind its perceived neutrality” (p. 40). All selection and appraisal is value-laden and the Memory of the World Programme is no exception. It is important for the future of the program that we better understand and articulate this active role and consider how to apply these understandings to it. The need that Sassoon perceives for “more transparent ways of working within archival institutions and an increased awareness of the cultural functions of archival work” (p. 45) applies equally to the Memory of the World Programme.

We should also be heartened that there is a debate about significance. Clarification of this important (and difficult) concept in relation to its application to documentary heritage will assist the Memory of the World Programme, with outcomes that include an expansion of the program from its current exclusivity, which at present allows only iconic items from dominant cultures onto its registers. The International Council of Archives has urged an expansion of the international register to include all national archives, as a special category if necessary, based on the importance of context to records, which means that “the focus of archival operations is on the total fonds and to select only the ‘most important’ documents for inclusion in the World Register is seen as incompatible with archival practice and ethics” (International Council on Archives, 2005). Although this could be considered as no more than an ambitious claim, it does recognize the reality of many collections of documentary heritage as constantly evolving entities, something that current Memory of the World thinking appears not to accommodate.

The Memory of the World Programme is imperfect. Some suggest it is fatally flawed. Its heavy emphasis on inscription on its registers as an acknowledgment of significance is unlikely to provide security in the face of threat. It suffers from an inevitable politicization, resulting from its association with the intensely politicized UN. It has not yet achieved status as a UNESCO Convention, an achievement that would significantly enhance its status and would potentially attract greater support and resources.
Continuing to support the Memory of the World Programme, and working to improve it, are better than inaction. Our role as professionals requires us to support such an effort, despite the program’s many conceptual, structural, and resource difficulties. The Memory of the World Programme is one of a number of large-scale collaborative programs for the preservation of cultural heritage that are increasingly gathering momentum in the search for strategies and mechanisms to ensure the preservation of our documentary cultural heritage.

Notes

Ross Harvey is a member of the Australian Memory of the World Committee. Unless otherwise attributed, the views expressed here remain his own and not those of the committee.

References


Ross Harvey is professor of library and information management at Charles Sturt University. His interest in preservation stems from a period of employment in 1986–87 as the National Library of New Zealand’s first newspaper librarian, when he became aware of the significant issues associated with paper deterioration. Since then he has researched into and published widely about the preservation of documentary heritage materials. Recently his interests have focused on the preservation of documentary heritage materials in digital format, and in particular on selection and appraisal aspects. Harvey has worked in universities in New Zealand and Singapore, and in Australia at Monash University and Curtin University. His long-standing interest in preservation of library and archival materials has resulted in several books about preservation, the most recent being *Preserving Digital Materials* (K.G. Saur, 2005). He has been a lecturer in the 2005 and 2006 European Union-funded DELOS Summer Schools on Digital Preservation for Digital Libraries.
Understanding, Respect, and Collaboration in Cultural Heritage Preservation: A Conservator’s Developing Perspective

SHERELYN OGDEN

ABSTRACT
Attitudes appear to be changing in the museum world about the preservation of cultural objects and of the cultures to which these objects are connected. The intangible nature of cultural objects is being addressed and is seen as equal in importance to, or in some cases greater, than an object’s tangible nature. This significant trend in cultural heritage preservation is increasingly evident in professional conferences, publications, and discussions, and is beginning to have an impact on preservation methodologies. It is affecting the way preservation professionals approach their work and manage collections. Understanding, respect, and collaboration are more important than ever in carrying out work. Understanding all aspects of the nature of the significance of objects, respecting an object’s intangible as well as tangible nature, and collaborating in a meaningful way with the cultural groups to which the items are connected are playing an increasingly prominent role.

In this article I shall address a few of the insights I have gained regarding cultural heritage preservation. I will talk about cultural considerations in the care of objects, particularly those of indigenous people, and the questions these considerations raise for all of us who are charged with the protection of cultural heritage. Because I shall be discussing cultures different from mine, I will use the voices of people from those various cultures as much as possible. My examples will be mostly American Indian, but I shall refer in more general terms to other cultures as well. Of course the specific practices of different cultures vary, but the considerations and issues these practices raise are similar. I would like to acknowledge at the outset the American Indian people who provided gracious and
Public Discourse

At its general conference in October 2003 the United Nations Educational, Scientific, and Cultural Organization (UNESCO) adopted its Convention for the Safeguarding of the Intangible Cultural Heritage. The International Council of Museums (ICOM) chose the theme of Museums and Intangible Heritage for its twentieth conference in 2004, basing it on UNESCO’s definition of intangible heritage as “the practices, representations, expressions, knowledge, skills . . . that communities, groups and, in some cases, individuals recognize as part of their cultural heritage” (UNESCO, 2003, p. 2). At the ICOM meeting O. Young Lee, Adviser, Joong Ang Daily, Former Minister of Culture, government of Korea, and Honorary Professor, Ewha Womans University, Republic of Korea, stated that for museum professionals “the discourse is shifting from tangible to intangible cultural assets” (Lee, 2004, p. 5). Today most museums deal with the tangible and, as Lee (2004) noted, “people are now so used to the exhibitions put on by museums that they are more interested in the objects contained in the display cabinets than in the minds of the people who created the objects” (p. 5). At the same conference, Director Richard Kurin, Center for Folklife and Cultural Heritage at the Smithsonian Institution, USA Supervisor, Smithsonian Folklife Festival, explained:

The primary difference in dealing with intangible cultural heritage [versus tangible] is that the “thing” or “object” is the social practice or tradition—not a material object, recording, written transcription, photograph or videotape. It is the singing of songs in the community, the spiritual beliefs of a people, the knowledge of navigating by the stars and weaving meaningful patterns into cloth. (Kurin, 2004, p. 7)

Lee (2004) voiced concern that many countries in the world “do not even have the concept of intangible culture. They do not have any policies regarding intangible cultural assets, and as a result many intangible cultural assets are, at this precise moment, being abandoned and disappearing before our very eyes” (p. 6).

In June 2006, the American Institute for Conservation of Historic and Artistic Works (AIC) devoted the general session of its annual meeting to the topic of “using artifacts,” which for many cultures is necessary in order to preserve the intangible nature of the objects, and asked the question “is conservation compromised?” Professor Amareswar Galla, of the Australian National University and the University of Queensland, gave the keynote address. He explored shifting the paradigm of preservation so that both tangible and intangible heritage come together, along with cul-
tural diversity and sustainable development, to form an integrated heritage management model (Galla, 2006, p. 1).

**Personal Background**

Although I have traveled to various parts of the world and been introduced to different cultures, the concept of the tangible versus intangible in preservation first became a serious issue for me in the care of American Indian objects. As a conservator and consultant, I occasionally had been asked to provide assistance in the care of these. The methods and techniques I suggested were always based on standard museum practice. But often, it seemed, my suggestions did not meet the cultural needs of the objects and were impractical given the situation in which they existed. I was glad that tribal methods of care were still practiced.

Yet there appeared to be a need for additional practical information, especially as tribal museums and cultural centers grew in number. One thing led to another, and in collaboration with many people I edited a book intended to address this need, *Caring for American Indian Objects: A Practical and Cultural Guide* (Ogden, 2004). The book is based on standard museum practice and includes a section on cultural considerations, which is written by American Indian people. It was during this project that I became aware of how important cultural considerations are.

When I first thought about doing this project, I interviewed several American Indian people. I asked if a book like this would be useful, and I asked what topics they would like addressed and what questions they wanted answered. I was concerned that this book might be unnecessary; objects clearly have lasted for generations by tribal methods of care, so standard museum methods and techniques might not be needed. But the American Indians I consulted felt it was useful for the people who make decisions about the care of objects to have as much information as possible, and that the book would be helpful.

**Understanding**

One of the cultural differences between American Indian people and non-Indian museum professionals relates to the concept of preservation. It seems to me, as a conservator trained according to standard museum practice, that many conservation professionals tend to see all types of cultural items as objects or artifacts, often created as works of art, beauty, or craftsmanship, that have some special value in and of themselves. Each item is experienced as an individual object of study or beauty, separate and isolated from human society. Proper care of an item often means finding a way to preserve it so that it can be seen and studied, but not used or handled, and the conservator’s primary responsibility is to preserve the item’s artifactual or physical integrity. In short, preservation is all about the object, or the tangible cultural heritage.
American Indian people, on the other hand, tend to see a cultural item not as an *object* but as a functional item that is part of a human society and useful to it. In fact, the choice of words here is revealing. When collaborating on the book, Joe Horse Capture (A’Aninin [Gros Ventre]), Associate Curator, Minneapolis Institute of Arts, indicated that he was uncomfortable with the use of the word *object*. He explained that the more that word is used, the more an item becomes an object and the less it is seen as what it is—a part of everyday life. For American Indian people, the item is seen as part of the culture from which it comes and is inseparable from it. Proper care is seen as a way of preserving the lifeways of a people, not of preserving objects. Preservation is all about people and human societies, or the intangible cultural heritage. Jill Norwood (Polowa/Yurok/Karuk), Community Services Specialist, Museum Training Program, National Museum of the American Indian, explains this poignantly:

As an American Indian museum professional at the National Museum of the American Indian, I have seen the bittersweet emotions of sadness and joy that arise when Native people view cultural materials in our storage facilities. These community representatives often struggle to show museum staff that their cultural materials are not inanimate things but have life within them; it is hard for them to see the materials in such a clinical setting. Therefore I ask museum professionals everywhere to be respectful when speaking about Native cultural materials. (Norwood, 2006, p. 25)

Miriam Clavir, formerly the senior conservator at the Museum of Anthropology, University of British Columbia, explores these cultural differences in her book *Preserving What Is Valued: Museums, Conservation, and First Nations* (2002), and she provides several comparisons of the different approaches. She explains this in the introduction to the book:

Conservators approach preserving the cultural significance of a heritage object by preserving its physical integrity (which they can “read” through scientific evidence) and its aesthetic, historic, and conceptual integrity (which is interpreted through scholarship in related disciplines as well as “read” through physical evidence). Many First Nations, on the other hand, view the preservation of the cultural significance of a heritage object as inseparable from the preservation of traditions, oral history, community, and identity as First Nations; preservation is about people, and objects have their role in cultural preservation. The “juncture of impasses” that prompted me to write this book concerned whether or not it is possible to balance the preservation of the physical integrity of First Nations collections in museums with the preservation of their conceptual integrity—an integrity that derives from the living culture from which the objects originate. (p. xvii)

So, whereas the goal of non-Indians is primarily to preserve the item, the goal of American Indian people is to preserve the culture of which the item is just one part. And this culture is an oral one rather than one with
written records. This basic difference is especially apparent when considering why items should be preserved. Kathryn “Jody” Beaulieu (Anishinabe/Ojibwe), director and NAGPRA representative, Red Lake Tribal Library and Archives, explains:

American Indians have been viewed as a vanishing people. What if our cultural objects had not been preserved? Memories are sparked by them, and we learn through the oral history of our elders. Objects assist in having memories flourish. Elders see objects, and then stories flow from them, and younger Indians learn. (as cited in Ogden, 2004, p. 3)

Faith Bad Bear (Crow/Sioux), formerly an assistant curator of ethnology at the Science Museum of Minnesota, points out the importance of these items in teaching the culture to American Indian children:

Our cultural items from the past are important. They tell us why things were done back then. It’s important that the children of the Tribes understand this. It is important for the children to learn from us. . . . Some items are meant to deteriorate and should be left to deteriorate naturally. Some are not. Those that are not should be used to educate our children. (as cited in Ogden, 2004, p. 82)

Executive Director Dr. Sven Haakanson Jr. (Alutiiq-Sugpiaq) of the Alutiiq Museum and Archeological Repository, describes items as “clues to our cultural past” (Haakanson, 2004, p. 5) and sums up their importance in preserving the culture. He says:

American Indian cultural items are more than objects of art or representations of primitive peoples. They are cultural links between the past, present, and future for specific groups of people. Additionally they may be the only history we have for these Native peoples. The items contain implicit information about how traditional materials were made into objects that were used everyday to fulfill both practical and ceremonial needs. What we can learn from these items is how our ancestors viewed their world, how they treated animals, and how they respected their ancestors. Most important, we can use these items to preserve our culture and bring this knowledge into a living context that continues to be passed on from generation to generation, rather than be tucked away in a book, archived, or hidden in a museum collection. (Haakanson, 2004, p. 5–6)

Understanding some of the reasons American Indian people believe objects should be preserved clarifies cultural differences related to the use of them. Whereas non-Indian conservators try to restrict use, which is usually limited to research or display purposes, American Indian people may wear, eat from, smoke, or make music with cultural items. On the subject of use, Laine Thom (Shoshone/Goshiute/Paiute), a park ranger (interpretation) for the Colter Bay Indian Arts Museum, Grand Teton National Park, asserts:
Native American culture is dynamic and always changing. Native ways of thinking in the past, present, and future are connected. Items used in ceremonies from the past are still utilized by contemporary Native American people today. Whatever the item is, it is “alive” and full of spirit. These items connect past, present and future. (Thom, 2004, p. 16)

He also notes:

When most non-Native American persons view these items behind glass [in a display], they think that what they are looking at is from the past and frozen in time. However, they aren’t, because much of the time many of the items are still used by contemporary Native people. People who own heirloom pieces often bring out the pieces and use them for social gatherings and for religious purposes. (p. 16)

The need to use items is beginning to be acknowledged by conservators. At the 2006 AIC annual meeting mentioned above, when considering the question “Using artifacts—is conservation compromised?,” Malcolm Collum, a conservator who oversees vehicles at the Henry Ford Museum and Greenfield Village, noted the museum’s founding “intention of operating its collections to maximize their interpretive value,” and suggested that a formalized and balanced system is needed that allows items to be used while minimizing damage (Collum, 2006, p. 5).

RESPECT

Another important cultural difference relating to an object’s tangible versus intangible nature is the value placed upon respect and the interpretation of this concept. As Bad Bear explains, “everything about us—how we were raised, how we were talked to, how we were taught—everything revolves around respect” (as cited in Ogden, 2004, p. 82), and Char Tullie (Diné/Navajo), formerly the registrar at the Navajo Nation Museum, points out that “When working with cultural objects, the number one thing is to have respect” (as cited in Ogden, 2004, p. 57). This value, which is deeply held by people of many cultures, is central to the cultures of American Indian people and needs to be present in all aspects of museum work, including preservation. It affects the way items are used, handled, and displayed.

It is not enough to employ the best museum practices; museum professionals need to seek information on how to handle items in a manner that is compatible with the appropriate tribal practice. Registrar Joan Thomas (Kiowa), of the Gilcrease Museum, suggests:

With regard to storing objects and handling them, always try to find out as much as you can about their origins. Even if you know only the general area or cultural group from which a particular object originates, this will give you a better idea of how to interact with it. (Thomas, 2004, p. 8)
It is important, however, for non-Indians to recognize that cultural practices differ from tribe to tribe. If possible, Thomas urges, “always contact the tribe of an item’s origin to determine the appropriate way to handle it. By going to the source in a respectful way, you will usually get the accurate information you need” (pp. 9–10). She advises further:

The museum and collector should always be aware when adding to their collections that the items they are handling are from a living and vibrant culture. No object exists within a cultural vacuum. There are people who care deeply about how you are handling, displaying, and storing the cultural material in your care. (p. 10)

Respect in the care of cultural items may be most challenging for non-Indian conservators when it involves sacred items. As Alyce Sadongei (Kiowa/Tohono O’Odham), assistant curator for Native American relations at the Arizona State Museum, University of Arizona, asks: “How should these objects be cared for while in museums, and who prescribes the care?” (2004, p. 17). She suggests three different categories of use based on the original purpose of items that conservators may find helpful in clarifying different care practices. These categories are: Physical Use, Symbolic Use, and Life Ending Use. She points out that “some non-tribal museums have elected to apply tribal cultural practices to their existing collections care policies” (p. 18), and she introduces the concepts of active practice and passive accommodation to describe two approaches to this (p. 18). Sadongei explains:

Sacred objects . . . often require special care that cannot be reduced to a list of “do’s and don’ts.” The very notion of sacred is not static and, in fact, is subject to change. While having such a list or guidelines is appealing, it simplifies the profound nature and purpose of these objects. (p.19)

She provides general guidance in the following words:

In post-NAGPRA years, neutrality can be the most important form of respect that museums can demonstrate. Neutrality takes into account the diversity of human belief and cultural expression and acknowledges that no single belief is privileged over another. For museum professionals, this means providing effective museum standards of care. (p. 19)

Perhaps the concept of respect is violated most often in the display of cultural items. It is not unusual for items that have special meaning for American Indian people, such as sacred ones, to be placed on display. Polly Nordstrand (Hopi), assistant curator for native arts, Denver Art Museum, points to the conflict between culturally sensitive information protected by Indian communities and a museum’s role as a public institution:

In many Indian communities, some knowledge is seen as a privilege for the few, not a right for all. Objects as well as images are integral to
this knowledge, especially in ceremonial use. Too often museums have not respected this tradition and have recklessly displayed sensitive items that were never created for public view. (2004, p. 12)

In other words, quoting Bad Bear, “museums should know that there are aspects of our lives that we want to keep to ourselves and not put on display. They should respect that” (as cited in Ogden, 2004, p. 82). This is yet another example of how an object’s intangible nature needs to guide its handling and use.

An additional issue is displaying items out of the context of how they were used originally, or without appropriate supporting information. Laine Thom (2004) believes:

American Indian cultural items should be combined with historical and contemporary photographs and graphic text of Native peoples, narrative and commentarial, relevant to the themes of the exhibit. The result of such an exhibit would be an important method of . . . [demonstrating] the ways of life of Native peoples, historically and now. It is important to display items in such a way that their past history and current use are understood in the context of the lifeways of Native peoples. (p. 15).

Nordstrand suggests:

When beginning an exhibit project, you may want to approach the selection of objects by first analyzing your own point of view. Do you see this object as a work of art? As a historic artifact? As a living being? What was the maker’s intention in creating this object? Did he or she intend for it to be displayed? Or even preserved beyond its original use? You may also want to consider how your point of view influences the story you are telling the audience. If a ceremonial item is displayed for its aesthetic qualities, are you providing accurate information to the audience? (p. 12)

I recently visited the Museum of Northern Arizona in Flagstaff and saw on display a portion of their collection of more than eight hundred Katsina dolls. Posted on the gallery wall was an explanation of the meaning of the dolls titled *The Hopi and the Katsinam: A Covenant of Trust and Sacrifice*. For me the explanation was revealing and moving, particularly the two paragraphs from it that deal with the concept of respect:

The Hopi people believe in sharing. The life-giving generosity of the Katsinam is meant for all, Hopi and non-Hopi alike. However, as with the Hopi, the responsibility for mutual respect between the Katsinam and humankind is incumbent upon us as well. Thus, when the image of a Katsinam is taken in vain to decorate a beer mug, a cocktail swizzle stick, a comic book cover, or a swimsuit, then it is the responsibility of all of us to protest. Likewise, when a Katsina image is used out of context to support a non-Hopi philosophy or religious concept, then this appropriation must be challenged. The Katsinam are not toys nor
commercial decorations, but powerful, benevolent beings who appreciate gratitude expressed for their kindness. If that respect is not offered, they reserve the right to recall their gift, rescind the covenant, and leave humankind to fend for itself.

For the Hopi this would be unacceptable. Without the Katsinam their life would be diminished. Accordingly, they ask you to assist them in strengthening the bond between all of us through your expression of respect for the beings shown in painting and sculpture within this gallery. Embrace the beauty of the Katsina for in it is the embodiment of life.

Collaboration

Respectful display of items probably cannot be accomplished by non-Indians without the guidance of members of the appropriate tribe. Felton Bricker Sr. (Mohave) suggests:

Museums should invite Native people to visit their institution when they are installing a show that represents their Tribal group. This would be the best way to get the “Native voice” and to be sure you have accurate representation of their people. NAGPRA has taken us to new places, but museums still have a long way to go. (as cited in Ogden, 2004, p.97)

But seeking guidance and developing a truly collaborative relationship may not be as straightforward as it first seems. Once again, this is because of basic cultural differences. Tony R. Chavarria (Santa Clara Pueblo), curator at the Museum of Indian Arts and Culture/Laboratory of Anthropology, gave a talk at the 2004 annual meeting of the Western Association of Art Conservators titled “Structural Fills: Preservation and Conservation in a Museum of Living Anthropology.” He makes several important points. “If a museum is to act in consultation with indigenous groups, there must be a shift in how these interactions develop and how success is mapped” (Chavarria, 2005, p. 23). He calls attention to creating symbiotic investments in each other:

Progress should not be measured in results such as repatriations, but in the ongoing dialog with tribes. The consultation process can be a method to establish a level of trust and understanding; the prospect is to create ongoing relationships with governments and people. The experience is symbiotic. Over time, tribal representatives will have a deeper insight into the museum, its mission, staff, and collections; and the museum will gain a deeper understanding of the cultures it represents. By open and quiet dialogue, respect and a fragile trust can be built and always must be nurtured. Repatriation is not always a conclusion. Consultation and beneficial relationship is the ongoing hope. (p. 24)

He says elsewhere with regard to the sensitive subject of repatriation: “We only need to find a shared level to communicate” (p. 23), and he
notes that “By seeking dialogue rather than repatriation, our interactions
turn from being between a museum and tribal authority, to a quiet talk of
common interests” (pp. 23–24).

**Museums and the Intangible**

This brings us again to the discussions of intangible heritage at the 2004
ICOM conference. Sid Ahmed Baghli, the cultural advisor, permanent de-
egregation of Algeria to UNESCO, states: “intangible assets and elements have,
alas, been neglected and forgotten. In many countries, they have become
the poor relations of culture” (2004, p. 15). He goes on to say: “Rethinking
the role of museums has become strategic in the battle to safeguard and
valorize our increasingly numerous, valuable and fragile cultural assets. The
very definition of the museum (ICOM Statutes, Art. 2) needs to be reviewed
and its scope widened” (p. 16).

cultural heritage?” (p. 7). He points out:

> In order to deal with intangible cultural heritage museums must have
an extensive, fully engaged, substantive dialogue and partnership with
the people who hold the heritage. Such partnership entails shared
authority for defining traditions, and shared curation for their rep-
 resentation. Museums cannot resort to the controlled re-creation of
idealized or romanticized living culture performed by scripted actors,
but must instead deal with heritage as it is lived by real people. Nor
can museums hide behind a history of elitism, ethnic, or class bias
that has often afflicted the institution. Charged with the twin duties
of cooperation and respect, museums will have to cross all sorts of
boundaries that have sometimes kept them “above and beyond” the
broader populace. (pp. 7–8)

Nowhere is this more evident than in the proliferation of American vernacular memorial art that we see today. This art by common people,
rather than trained artists, often created as a response to grief, com-
memorates events and individuals. Events like the 9/11 collapse of the
Twin Towers, the Oklahoma City bombing, and automobile accidents on
highways result in public and collective expressions of mourning and re-
membrance. Individuals being remembered range from the anonymous
or unknown, such as the victims of genocide, to the well-publicized, such
as Princess Diana or children from the Red Lake Indian Reservation in
Minnesota.

In her presentation on vernacular memorial art at the 2005 AIC an-
nual meeting, Lauren Farber, paper conservator, pointed out the ethical
and conservation issues these spontaneous shrines raise for museums and
cultural centers in determining how and even if they should be preserved.
She points out that this art “has begun to significantly impact museum
collections as well as civic life, and to raise unique and important issues
in art conservation and museological ethics” (2005, p. 5). She continues,
“These new vernacular forms have affected the attitudes and policies of public institutions and the design and development of public memorial sites and museums” (p. 6). These memorials are expressions of our society today, of our popular culture. We do not usually perceive our collective popular culture as one of an indigenous people, but in preserving the intangible aspects of it there are many similarities.

Looking To the Future

Having spent more than three decades as a practicing conservator and consultant in the field of cultural heritage preservation, I have observed several trends while the profession has evolved. Technological and economic developments have caused us to look at preservation in new ways and to change our approach to its management. To a large extent, the field has gone from single item conservation, which focuses on the treatment of one object at a time, to preventive conservation, which endeavors to make the most effective use of new technologies to preserve not just single items but entire collections (Ogden, 1997, p. 164).

Now the perspective seems to be broadening again, at least with regard to objects connected to indigenous people. The focus is shifting to preserving cultures, rather than just single items or collections of items. Objects are preserved as an aid in preserving cultures, and their intangible as well as their tangible aspects are playing a role in developing preservation methodologies. This new perspective presents special challenges. It raises questions about the spiritual and cultural nature of items and how to ensure that this aspect of them is protected. Issues of use, storage, and display need to be considered within the context of a particular culture’s concepts of preservation.

A general understanding of various cultural practices and points of view, and a respect for these on the part of everyone involved are key to the appropriate care of cultural heritage. In September 2007, the Canadian Conservation Institute will hold a symposium titled “Preserving Aboriginal Heritage: Technical and Traditional Approaches.” It is intended to provide “an opportunity for Aboriginal people and conservation specialists to learn from one another—in an atmosphere of mutual respect—about traditional, technical, ethical, and intangible aspects of the conservation of Aboriginal material culture” (Canadian Conservation Institute, n.d.). I hope and believe that this will prove to be just one of many opportunities for developing the active dialogue and mutually beneficial collaboration that are critical for the future of cultural heritage preservation.

Notes
1. It should be noted that no individual receives royalties from the sale of the book Caring for American Indian Objects: A Practical and Cultural Guide; all proceeds go to the Minnesota Historical Society to support its programs. Also, the book was distributed to nearly three hundred tribal institutions nationwide. This distribution was made possible by grants from...
the Bay and Paul Foundations and the George A. MacPherson Charitable Trust, and it was carried out under the guidance of an advisory committee of American Indian museum professionals.

2. The acronym NAGPRA is commonly used to refer to the Native American Graves Protection and Repatriation Act:

On November, 16, 1990, President George Bush signed this act into law. It addresses the rights of lineal descendants, Indian tribes, and native Hawaiian organizations to certain American human remains, funerary objects, sacred objects, and objects of cultural patrimony with which they are affiliated. (Ogden, 2004, p. 243)

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Sherelyn Ogden received an MA from the Graduate Library School at the University of Chicago and was trained in library and archives conservation at the Newberry Library in Chicago. She has nearly thirty-five years experience as a practicing conservator, consultant, and teacher. She held the positions of Director of Book Conservation at the Northeast Document Conservation Center in Andover, MA and Director of Field Services at the Midwest Art Conservation Center in Minneapolis, MN. She currently serves as Head of Conservation at the Minnesota Historical Society in Saint Paul, MN. She has published extensively on various aspects of heritage preservation. Her most recent book is *Caring for American Indian Objects: A Practical and Cultural Guide.*
Training Professionals to Preserve Digital Heritage: The School for Scanning

ANN RUSSELL

ABSTRACT
From 1995 to 2005, the Northeast Document Conservation Center (NEDCC) presented its School for Scanning conference eleven times in cities across the United States, serving a total of nearly four thousand professionals. The program addressed a seemingly insatiable need for training on building, managing, and preserving digital collections. Because the conference was presented by an organization whose mission is preservation, the emphasis was on standards, quality, and assuring long-term access to digital collections.

Since 1995 the content of the conference has evolved as institutional digitization programs have matured and as standards and best practices have developed. The succession of conference agendas provides a series of snapshots of the effort that has gone into bringing digital programs into being. This article, originally written as a paper for the 2006 Congress of the International Federation of Library Associations [IFLA] in Seoul, Korea, looks at how the needs of the audience changed over the decade. It evaluates the factors that have contributed to the school’s ongoing success and at current challenges to this continuing education program as the experience level of professions in the field advances rapidly.

MIRRoring THE GROWTH OF DIGITAL PROGRAMS
On April 13, 1995, NEDCC presented the first School for Scanning as a one-day conference at the John F. Kennedy Library in Boston (see Appendix 1). The program grew out of an ongoing series of preservation microfilm workshops sponsored by NEDCC. A growing number of attendees were requesting additional training on digitization because, they reported, within their institutions, they were the ones expected to staff new
scanning operations. The title was a takeoff on Richard Sheridan’s 1777 play, *School for Scandal* and the name stuck. The pilot conference drew more than three hundred people, an enormous response that took the organizers by surprise. Speakers representing the National Endowment for the Humanities (NEH), the Andrew W. Mellon Foundation, and the Commission on Preservation and Access reported on their organizations’ support for digital efforts.

The agenda spotlighted two early NEH-funded research projects that explored the conversion of existing microfilms to digital files and vice versa, presented by Paul Conway, then at Yale University, and Anne Kenney, at Cornell University. The major focus was on the technical aspects of scanning, with much discussion about recommended resolution levels, and whether it was preferable to scan first or microfilm first. With hindsight, the emphasis on the technology for image capture appears not to have been the most important issue after all. Parenthetically, neither Yale nor Cornell ultimately delivered content from those experimental projects to the Web.

Most of the audience members at the 1995 conference had no first-hand experience with digitizing collections materials. Their concerns were about how to get started, and their most pressing question was whether they should or should not digitize. Many said they felt pressure from institution directors or trustees who thought the answer to their collection storage problem was to “just scan it.” Little was understood about the complexity and cost of building digital collections, or the long-term sustainability issues.

The electricity generated by this first conference was palpable. There was tremendous interest in expanding the agenda to include other aspects of building digital collections and in bringing the conference to other locations. The School for Scanning’s long and successful afterlife as a road show began through a partnership with the National Park Service. NPS’ enterprising archivist, Diane Vogt-O’Connor, obtained a grant through an internal educational fund to expand the program to a three-day event and present it at the Smithsonian Institution in Washington in September 1996. The Getty Center also joined the partnership, contributing copies of its publication, *Introduction to Imaging* (1995), by Howard Besser and Jennifer Trant, as a free handout.

NEDCC’s energetic Field Service Director, Steve Dalton, worked with the National Park Service staff to develop the curriculum for the first three-day conference. New topics that were added included selection, copyright, Web access, and media longevity. Digital preservation was a topic that could only be talked about in the future tense, and hence discussions were abstract. The agenda included a presentation by Steve Puglia, at the National Archives, entitled, “Digital Preservation: Fact or Fiction?” and a wrap-up analysis by Howard Besser, then at the University
of California at Berkeley, entitled, “What Have We Learned? What Must We Learn?” The presentation of the expanded version of School for Scanning filled the largest hall that could be found at the Smithsonian Institution and generated a long waiting list.

Based on the success of the Washington presentation, The Andrew W. Mellon Foundation provided start-up support to take the School for Scanning conference to four other locations including Berkeley, New York, New Orleans, and Chicago. The success of the program in the late 1990s was largely due to the work of a curriculum committee of digital experts who evaluated each conference, based on a post-conference questionnaire, and updated the agenda for the next presentation. The curriculum committee saw a need to look more broadly at management issues. They sought to incorporate new model programs and evolving standards in an ongoing quest to achieve the right balance of topics and speakers.

The evolution of the curriculum reflected the rapid development from digital projects to digital programs, especially at national institutions and large research libraries. Much of the innovative work being done at this time was funded by grants from the Library of Congress’s American Memory program and by the Institute of Museum and Library Services (IMLS). These agencies developed guidelines that encouraged institutions to build sustainable collections.

The School for Scanning served as a mirror for the field; the more it reflected the growth of institutional programs, the more it focused on the infrastructure for digitization. Evolving standards were incorporated into the curriculum and the speakers promoted practices that complied with these standards. New topics included the institutional infrastructure and interoperability, and metadata, which first appeared on the program in 1997. As start-up funding from the Mellon Foundation phased out, NEH provided support to NEDCC to continue the School for Scanning as the centerpiece of a national training program on reformatting.

NEDCC sought to appeal to the broadest possible audience and the wide range of professional affiliations of participants proved to be one of the important strengths of the program. School for Scanning was one of the few forums where practitioners from the library, archives, museum, and information technology fields could come together to share information across institutional lines and, as a result, to spawn strategic partnerships. An important turning point was the addition to the faculty in 1999 of Murtha Baca, from the Getty Research Institute, who spoke about descriptive metadata. She focused on the importance of developing common cataloging practices for museums, libraries, and archives that hold visual materials. This message helped to build awareness of how the activities of these different types of institutions were becoming more similar in the online environment.

Other topics that have been added to the agenda more recently have
included vendor relations, digitization of audiovisual formats, business planning, the IMLS/NISO Framework of Guidance for Building Good Digital Collections (NISO Framework Advisory Group, 2004), and trusted digital repositories. The NISO Framework, together with the recent publication by RLG and NARA of guidelines for certifying trusted repositories (RLG-NARA Task Force on Digital Repository Certification, 2005), have pointed the way to reorganizing the entire agenda and presenting what most needs to be taught.

**Approach**

The teaching methods of the School for Scanning reflected its goal of accommodating a large audience. NEDCC recruited and cultivated long-term relationships with a core faculty of nationally recognized experts. Thanks to its all-star cast, the program attracted participants who were willing to travel long distances to attend as well as local audiences. The speakers lectured formally in a large hall, most often filled to capacity. Yet participants and faculty reported that one of the strengths of the conference, with the exception of the two most recent presentations, was their interactivity. After each pair of speakers, a generous time slot was allotted for a question and answer period.

The core faculty members, who developed a strong sense of identification with the conference, generally agreed to stay for the entire three days in order to meet with and advise participants. Their spontaneous participation in question and answer sessions and panels helped to spark lively discussions that continued through the coffee breaks, lunches, and often into the evening. In 2000, with support of IMLS, NEDCC produced a textbook for the School for Scanning, entitled *Handbook for Digital Projects* (Sitts, 2000). Although the publication has not been updated, parts of it are still valid and it remains one of the most frequently accessed resources on NEDCC’s website.

One of the identifying characteristics of the School for Scanning that remained stable over time, was its deliberate focus on decision making, as opposed to recommending specific products and procedures. Although some people in technical positions attended, the program was clearly addressed to administrators and decision makers, those who supervised technical staff or allocated resources for digital activities. The goal of the School for Scanning was not to give people a cookbook, although many people came to the conference hoping that was what they would get. Instead, they went away with the list of questions they needed to ask in the planning stage of a digital project. The faculty took the position that there was more than one valid solution and that each institution needed to make its own decisions based on its mission and its understanding of who would use the digital content and for what. Another identifying characteristic of the School for Scanning that remained constant was NEDCC’s preserva-
tion commitment, and this has distinguished the conference from other forums. From the start, there was emphasis on producing long-lasting digital products. For many years Paul Conway spoke about preservation in a digital world. Long before the principles of the Open Archival Information System (OAIS) were articulated (Consultative Committee for Space Data Systems, 2002), he preached the importance of using nonproprietary software and urged audiences to produce digital products worth preserving.

Like other continuing education programs, the School for Scanning served professionals who were already employed in the field and who needed training to carry out their own jobs. Given that libraries and other institutions needed to staff their growing digital initiatives with people who had not been professionally trained in digital librarianship, the need for training in place during this seminal ten-year period was intense. Institution administrators were hungry for training opportunities for themselves and for their staffs. Programs were advertised nationally. Conferences typically drew participants from forty states, with a handful of international participants. The demographics remained fairly stable over time. The largest number came from libraries, with the majority representing academic libraries, followed by archives, museums, and a wide range of government agencies, research organizations, religious groups, and others.

**Changing Demographics**

What did change over the years, however, was the audiences’ increasing knowledge level about digitization. In the first few years, very few of the participants were actually digitizing. With more than 92 percent of cultural institutions in the United States currently digitizing from source materials, according to a 2005 NEDCC survey, the audience is far more sophisticated and a greater percentage of attendees are practitioners. The questions that are asked are well formulated, growing out of specific projects rather than theoretical interest.

Interestingly, with more experience, the belief that digitization is a cheap and easy panacea has all but disappeared. The audience has a realistic appreciation that digitization is difficult, expensive, and requires an ongoing institutional commitment. The initial euphoria about digitization has been replaced with concerns about the high costs of digital initiatives and how institutions will sustain them after their initial grant funding ends. These concerns are borne out by recent data from a nationwide survey conducted by Heritage Preservation (2005), which indicates that only 27 percent of United States institutions have recognized a responsibility for maintaining digital collections as part of their mission.

As the School for Scanning participants have become much more knowledgeable about digitization, the level of instruction appears to have
evolved sufficiently rapidly to stay ahead of the audience. Even for the two most recent conferences, a high percentage of participants reported that they learned as much or more than they expected to learn: 91 percent for the Chicago program in 2004 and 87 percent for the Boston program in 2005. The speakers have consistently received high marks, with an overall score of 4.5 or higher on a scale of 1–5, with 5 being the highest rating. Attendees continue to comment that the conference helped them plan their next project, or that they will return to their institutions and change the way they manage their digital initiatives.

In addition to benefiting thousands of participants in the United States, there has also been an international dimension to the training program. It was offered in two international settings, at the Royal Dutch Library in the Netherlands in 2001 and the National Archives of Cuba in 2000. The Dutch program benefited from tours of the library’s new digital archiving system, while the Cuban program had to be adapted to an environment that lacked widespread Internet access. The author recognizes that the approach of the School for Scanning may not translate with complete success outside of the United States and Canada. As the United States lacks a national agenda for digitization, the relationship of individual institutions to the national effort is different than in countries with more centralized leadership. As a result, the funding is different and priorities are different.

**Impact**

The School for Scanning has had a transformative impact on its sponsor organization, the Northeast Document Conservation Center. The center’s access to a national network of digital experts has become one of its most valuable assets, one that transcends its regional footprint in New England. It has established an identity for providing cutting-edge information on digitization and it has recognized a need to maintain this position of leadership.

In 2003, the School for Scanning served as a launching pad for an IMLS-funded National Leadership initiative to develop a methodology for assessing the digital preservation needs of institutions and create tools to help institutions strengthen their digital readiness. In carrying out this project, NEDCC has formed strategic partnerships with the Museum Computer Network, Heritage Preservation, and the Center for Research Libraries. Thus far, a written assessment tool has been drafted and test-bed site visits are currently underway. The goal is to develop a model for channeling technical assistance on digital readiness and digital preservation to small and medium-size institutions.

After ten years of teaching School for Scanning, the market still has not been saturated. Indeed, a recent audience survey performed by NEDCC as part of a business planning study indicated that, among a wide
choice of current and potential educational topics, School for Scanning ranked as the number one need. A number of participants attended the conference on a more or less regular basis; 5–10 percent of the audience are repeat attendees. In an effort to assess what has been accomplished by School for Scanning over the last decade, the author of this article has contacted some of the long-time faculty members, especially Paul Conway at University of Michigan and Steve Chapman at Harvard University, who offered the following comments on the program’s impact.

- School for Scanning has been one of the most effective advocates for the IMLS/NISO Framework for Guidelines for Building Digital Collections.
- School for Scanning brought and kept preservation in the consciousness of libraries and archives at a time when most institutions focused narrowly on the technology of scanning.
- School for Scanning succeeded in relating technology to the institution’s mission, rather than relating the institutional mission to what technology can do.
- Participants came away from the conferences with an enlarged perspective about how to approach their own work and this is what continuing education should do.
- Participants invariably got leads on innovative projects from the speakers and also from the question and answer sessions. They got a sense of who is who on a national level, of who is doing what.
- School for Scanning was successful in the way it gave participants focused access to the literature, to evolving standards and to people doing the best work. The bibliographies, website links, and other handouts were critical resources.
- As digital projects get older, with some now approaching the ten-year mark, there has been a pay off for School for Scanning participants who thought about their users, who thought about preservation. They are able to rework the interface and rebuild the user experience to get more from collections. Others have static little websites that do not scale; they realize the limitations of the design and wish they had done A, B, and C at the outset.
- Even more than its publications, the School for Scanning has put NEDCC on the map in a new way and made it a national source for continuing education on cutting-edge preservation issues.

Future Direction

The audience for School for Scanning has continued to grow, with 350 people at the Chicago conference in 2004 and 429 at the 2005 conference in Boston. This level of success, however, has had a downside. The original interactivity of the forum has been stifled to some extent by the enormous
audiences. Some participants have reacted negatively to too many “talking heads.” One commented that she “felt like a mushroom after being in the dark for three days.” As a result of the increasing knowledge of a large sector of the audience, faculty and participants have observed a widening disparity between the training needs of experienced practitioners and those of individuals from institutions that are still at the beginning of the learning curve or who have been newly hired for their positions. Beginners have reported that they do not feel comfortable asking questions in this environment. At both extremes of the spectrum, participants feel that, for them, the School for Scanning is no longer a “school.”

Some of the faculty members would like to see the conference evolve into a Graduate School for Scanning, targeted to a smaller audience of experienced practitioners who want to keep up with what is happening on the bleeding edge. Others argue for offering a more basic track for those participants who still need information at an introductory level. Up to this time, NEDCC has been reluctant to fragment the audience. School for Scanning is currently at a crossroads.

NEDCC has recently obtained IMLS funding for a new conference on digital preservation, entitled Persistence of Memory: Stewardship of Digital Assets. This program provides more detailed discussions of sustainability issues such as trusted digital repositories, preservation metadata, and business planning. In addition, NEDCC is integrating teaching on digital preservation into its traditional preservation courses in library schools and its basic preservation workshops.

For the immediate future, NEDCC plans to continue to offer the conference without grant support, while adding breakout sessions to incorporate more interactive teaching methods. Given that no topic can be sustainable forever, the future of School for Scanning is uncertain. However, now that NEDCC has established a niche in the digital world, it is well positioned to build on the School for Scanning experience to develop a variety of new services. It has begun to offer digital production services, digital advisory services, and workshops for smaller audiences. As a recent technology survey by the Institute of Museum and Library Services (2006) indicated, to undertake digitization projects, all types of cultural heritage institutions report that training current staff to perform digitization activities is the predominant solution. Education and training emerge as one of the greatest challenges of the twenty-first century as libraries adjust to an increasingly digital environment.

Note
This paper is based on a presentation to the 72nd IFLA World Library and Information Congress, August 20-24, 2006, Seoul, Korea.
References

Appendix 1. List of Schools for Scanning Conferences

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
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<tbody>
<tr>
<td>April 13, 1995</td>
<td>John F. Kennedy Library</td>
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<td></td>
<td>Boston, Massachusetts</td>
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<td></td>
<td>Washington, DC</td>
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<tr>
<td>May 12–14, 1997</td>
<td>Berkeley Marina Marriott Hotel</td>
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<td></td>
<td>Berkeley, California</td>
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<tr>
<td>November 3–5, 1997</td>
<td>New York Academy of Medicine</td>
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<td></td>
<td>New York, New York</td>
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<tr>
<td>December 7–9, 1998</td>
<td>LePetit Théâtre du Vieux Carré</td>
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<tr>
<td></td>
<td>New Orleans, Louisiana</td>
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<tr>
<td>June 2–4, 1999</td>
<td>Chicago Historical Society</td>
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<td></td>
<td>Chicago, Illinois</td>
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<tr>
<td>September 18–20, 2000</td>
<td>University of Washington</td>
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<td></td>
<td>Seattle, Washington</td>
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<tr>
<td>December 3–5, 2001</td>
<td>Crest Theater</td>
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<td></td>
<td>Delray Beach, Florida</td>
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<tr>
<td>April 23–25, 2003</td>
<td>The Getty Center</td>
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<td></td>
<td>Los Angeles, California</td>
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<tr>
<td>June 2–4, 2004</td>
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<td></td>
<td>Chicago, Illinois</td>
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<tr>
<td>June 1–3, 2005</td>
<td>Boston Park Plaza Hotel &amp; Towers</td>
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<td></td>
<td>Boston, Massachusetts</td>
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Ann Russell has served as executive director of the Northeast Document Conservation Center since 1978. She received her undergraduate degree from Harvard University and holds a PhD in English Literature from Brandeis University. She has served on...
the Boards of Directors of Heritage Preservation and the Intermuseum Conservation Association in Cleveland, Ohio, as well as on preservation committees of the American Library Association and the Society of American Archivists. She currently serves as chair of the Association of Regional Conservation Centers and as treasurer of the Society of American Archivists. She has organized conservator exchanges and training programs in Russia, Mongolia, Cuba, South Africa, Latin America, and Central Europe. She has written two books and numerous articles on preservation.