

Preserve, Protect, and Defend

A Practical Guide
to the
Care of Collections

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Introduction

My first book, *Guide to the Environmental Protection of Collections*, was published more than twenty-five years ago. It was a compendium of facts on the elements of collection care—lighting, relative humidity, pest control, and others—and the problems specific to various kinds of collections. The book contained a lot of information that readers found useful, but I came to realize later that it left a major question unanswered: How does this information lead to action?

Information in itself does not tell us what to do; even the most accurate and up-to-date technical data cannot direct us to optimal collection care decisions. A lot more than scientific fact is required to achieve the dual goals of collections preservation and usability within the context of any one institution.

In my conservation practice, for example, we regularly receive queries from museums asking what would seem to be simple questions, such as “What kind of filters should we put on our windows?” We inevitably respond to that *one* question with *many* questions of our own: What is displayed in the room? Is the building a historic structure? What kind of lighting is there? Is it a period room or museum-style exhibition? Which directions do the windows face? Is there humidity control in the room? Is there money in your budget for a big project? Do you have the resources to apply for grant money once a plan has been decided on?

In other words, the initial answer to a question like “What kind of filters should we put on our windows?” is that “It depends.” What it depends on are all the things that make each collection and each institution unique. Whether the topic is light filters, storage design, or setting environmental parameters, there is no one correct answer.

A major premise of this book, then, is that collection care solutions need to be tailored not only to the nature of the collection, but also to the type of institution, its mission, programming, constituency, budget, staffing, and a host of other institution-specific factors. Decisions about preservation require consideration of a wide range of issues including cost, usability, space management, and staff preferences, as well as constant reference to the ultimate goals that the board and staff have set for the institution.

Despite the variety among institutions, the general principles of collection care are equally relevant to all kinds of collections—science, history, art, and archives—and to a range of collections-holding institutions—museums, archives, historical societies, libraries, religious and academic institutions, and private collections. The best solution for a multi-acre museum with a multi-million-dollar budget may not be the best solution for a local history museum housed in a former firehouse, but the considerations that go into decision-making are the same no matter what the institution's size.

Decision-making related to the preservation of collections is usually a matter of choosing among alternative possibilities, one of which is maintaining the status quo. In order to compare the alternatives, we need a well-defined goal. Otherwise, there is no clear way to judge one course of action as better than another.

But what criteria should we use? Even the best science cannot give us all the answers because the issues involved are not entirely material-based. Some of the issues are human ones.

For example, one important question that science cannot answer is whether a particular change in conditions with known effects on preservation is “worth it” for a collection and its institution. The so-called Charters of Freedom of the United States—the Declaration of Independence, Constitution, and Bill of Rights—are protected by an incredibly expensive system that encases the documents in inert argon gas, while complex optical technology measures the relative humidity and oxygen levels inside the case. This level of protection is, of course, neither plausible nor desirable in other settings, but there are still a number of levels of protection to choose from, each with its own price tag and degree of disruption of the daily operation of the institution.

Addressing these fundamental non-material-based questions in ways that are appropriate to the collection, the institution, and the people who will ultimately carry out the projects and live with the results is difficult. But, little by little, discussions on the institutional level among staff and a range of experienced professionals will make downstream decision-making easier and more efficient.

WHO IS THIS BOOK FOR?

This book will be of value to readers across a wide range of expertise, job titles, and responsibility, whether in-house professionals, volunteers, or outside consultants. The information-gathering and decision-making phases of collection care require the participation of many people. These can include conservators, curators, art historians, registrars, collections managers, archivists, museum administrators, museum educators, operations staff, designers, engineers, architects, building contractors, suppliers, security specialists, and pest control experts.

The book is designed to be accessible to readers with different interests and levels of expertise. The text has something of a narrative arc to make it readable from beginning to end for those who are interested in obtaining a broad foundation. Readers interested in a particular topic can go directly to the relevant sections or chapters.

WHAT ARE THE GOALS OF THE BOOK?

The book's main goals are:

- to explain in common language enough of the principles behind collection care to enable museum staffers to converse with experts, and for experts in one field to converse with experts in others.
- to enable readers to evaluate the reliability of consultants and of online or printed information sources.
- to advise on the interpersonal and organizational aspects of long-range planning and group decision-making.
- to inform decision-makers about the most common pitfalls of collection care projects.
- to illustrate the ways that collection care practice can enhance daily museum operations and the visitor experience.

One thing this book is *not* intended to do is to turn readers into collection care experts. In fact, there can hardly even *be* such a thing; the typical collection care project requires technical expertise, practical skills, and a broad understanding of the unique qualities of the institution—too much for any one person. A premise of the book,

rather, is that by being aware of the issues and knowing the major questions to be asked, an educated person can meaningfully participate in the dialogue and combine his or her particular skills and knowledge with others' to achieve an optimal solution—optimal for the collection and optimal for the institution that cares for it.

WHAT WILL YOU FIND HERE?

The book's chapters are grouped into six sections.

Section I: Setting the stage—Chapters 1 and 2

We begin by exploring what is meant by “preservation,” how it relates to “conservation,” and how both relate to the other classic museum functions. We then take a look into the world of museums and the people who work there.

Section II: Working with consultants—Chapters 3 to 7

Working with experts in collection care is vital, and should happen well before tangible steps are taken. The usual procedure is for a conservator with skills and experience in institutional collection care to visit the site to determine the condition of the collection, the physical environment that affects its welfare and longevity, and the organizational policies and practices that govern its care. (In many cases, particularly in historic houses, a preservation architect is added to the mix.) The site visit is followed by a written report containing a prioritized list of suggested projects that take into account not only the collection, but what is reasonably doable given the nature of the institution and its resources.

These chapters describe a typical assessment process and make recommendations for preparation of both the institution's staff and the consulting conservator that will help to ensure a fruitful outcome.

Section III: Decision-making in institutions—Chapters 8 to 12

The best way to deal with collection care issues is multi-departmental, multi-disciplinary decision-making. Outside consultants supply technical information and participate with staff to discuss potential alternative solutions and come up with a plan. The staff's knowledge of the institution plays a major role in the process.

Improvements in collection preservation can involve many different activities, but all need to start with fact-finding, followed by careful planning and execution.

Section IV: The museum environment—Chapters 13 to 18

The museum environment affects collections in many ways and can be managed to enhance long-term preservation. Topics include temperature and relative humidity, light and lighting, air quality, and “going green” in museums.

Section V: Preparing for the unexpected—Chapters 19 to 24

The welfare of collections depends not only on their day-to-day physical environment but also on preparation for the unexpected—wind and water penetration, fire and smoke, and infestations of mold and pests. Other than collections, the institutional assets include furnishings, documentation, and of course, the building itself. The health and safety of staff and visitors are just as important.

Chapters in this section deal with routine safety issues as well as readiness for disasters. The last chapter in the section, “Mold and Pest Management,” deals with a slightly different kind of disaster.

Section VI: Conservators and collections—Chapters 25 to 27

These chapters explain how conservators look at collections and how conservation treatments are planned and executed. Although collection care involves many “players,” conservators are often at the center of anything relating to preservation. However, what conservators do—and why—can be a mystery to everyone else, and explanations can be difficult.

The public is fascinated by the details of conservation treatments and preservation projects, but conservators are just starting to become involved in public outreach. The last chapter in this section discusses the ways that conservators can help museums enhance the visitor experience and expand visitorship.

TERMINOLOGY

“Museum” and “institution”— This book is relevant for collections-holding entities of all kinds: museums, libraries, historical societies, archives, art centers, religious and academic organizations, and individual owners. Not all of these are correctly called museums, and “collections-holding entities” is a mouthful. “Institutions” would seem to encompass more than is intended, but there doesn’t seem to be any simple alternative. Even in this introduction, both “museum” and “institution” are used interchangeably.

“Objects”— The book often refers to the components of a collection as “objects.” This will seem strange to conservators, for whom the word “object” is commonly reserved for three-dimensional things like sculpture, furniture, and decorative arts. “Works of art” only encompasses a small portion of the whole, since historical, archival, and natural history collections are big parts of the collection universe. “Collection material” is accurate enough, but seems stilted. “Things” is a little broad. “Cultural property,” a common term in official documents, seems too highbrow, and “items,” too lowbrow. “Objects” it is—at least some of the time.

“Usability” of collections— The term “use” is most commonly thought of as applying to the physical use of functional objects, like spinning wool on historic spinning wheels or driving vintage cars in parades. But “use” can also be intellectual (teaching us something), aesthetic (giving pleasure), or research-driven (providing scientific information). When collections are in storage they are not being “used,” and if they are not in good condition, they are not “usable.” Conservators find this terminology helpful because the physical demands on the object depend on the kind of “use” it will have. The projected use may determine the extent of its treatment.

Putting things away on shelves, even in a secure climate-controlled room, does not guarantee their long-term survival. Many museum objects, after all, were brought into museums at the point where they had lost all capability to fulfill their original purposes. Many are falling apart when they arrive, and few of even the strongest ones will last forever without some kind of help. Forever is a long time! Some

combination of repair, restoration, and ongoing care is required, particularly if we want to be able to use collections for display or study.

This book was written for the people responsible for that ongoing care.

These dedicated individuals have difficult choices to make, and the environment (in all senses of the word) is not getting any better. They face limitations in funding as well as heightened risk from extreme weather at the same time as society is expecting more from them. They are tasked with educating an increasingly demanding visitor population that expects to be not only enlightened but entertained. Their institutions host weddings, serve as venues for family outings and singles events, and create educational materials for local schools, while being expected to be an economic anchor in faltering down-towns and to promote the cause of culture to society at large.

All over the world, individuals working in innumerable museums, archives, historical societies, libraries, and art centers are doing their best to keep all these balls in the air as they strive to “preserve, protect, and defend” the collections entrusted to their care. They deserve a huge amount of credit.

And despite all the pressures of museum life and the relatively low pay, many young people still want to go into museum work. Even where morale is low and there is a lot of complaining among colleagues, most employees work hard and are extremely—some might say, overly—dedicated to their jobs. In the author’s experience, this dedication is one of the major factors keeping institutions viable and keeping collections safe.

I hope that this book will make the lives of these dedicated individuals a bit easier and a bit more rewarding.

Barbara Appelbaum

Section I

SETTING THE STAGE

I

What is preservation?

Collecting things and putting them in a museum is a powerful act of preservation in itself, but more than that is required. Society relies on museums to preserve things not just for now, but into the indefinite future.

Before we can talk meaningfully about preservation, we need to be clear about what the word means, particularly in relation to the sometimes overlapping term, conservation.

At a basic level, preservation means preventing destruction that might result from purposeful acts or from neglect. Perhaps the most fundamental act of historic building preservation, for example, is simply to keep bulldozers away.

And one of the main reasons that we *have* museums is to assure that certain things will never be discarded. The legal and ethical mandate of permanent stewardship is particularly important at points in an object's history when no one is interested in it, since museum objects, like clothing styles, are subject to fads.

This meaning of "preservation" is, hopefully, clear enough, but other uses of the word can be confusing, because conservators and other museum professionals use it differently.

For museums, "preservation" is an umbrella term that encompasses both collection care and conservation. Collection care, in turn, refers to measures that retard deterioration, prevent accidental damage, and

stabilize collections so that they can be safely handled, exhibited, and loaned. These measures include environmental control, limited handling, safe storage, and pest control. When the word “preservation” is used in this context, the word “conservation” is reserved for conservation treatments—the cleaning, stabilization, and repair of objects carried out by conservators.

For conservators, on the other hand, “conservation” is the umbrella term that defines our profession, encompassing treatment and collection care as well as research and examination. Conservators often refer to collection care as “preventive conservation.”

So conservators regard preservation as part of conservation while other museum professionals see it the other way around. Happily, this terminological awkwardness hardly matters. The job of increasing the longevity and usability of collections remains the same, no matter what we call it, and neither word in context causes major confusion.

PRESERVATION AS A MUSEUM FUNCTION

The preservation of collections is one of five major museum functions, the others being collection, exhibition, education, and research.

Collection is an ongoing function, even in institutions that do not have active acquisition programs, because of the need to decide whether to accept donations. *Exhibitions* are the public face of most collecting institutions—for the public, they are its primary purpose. *Education*, whether school tours, lectures for adults, or producing written material to accompany exhibitions, is also an essential part of the working life of a museum. *Research* is a necessary part of initial accessioning, writing label text for exhibitions, and museum education. Increasing our knowledge about museums’ holdings is a never-ending endeavor.

Preservation is crucial to carrying out the other four functions. If collections are not maintained in a state in which they can be used for study or display—let alone protected from deterioration or disaster—the effectiveness of the other functions will be compromised.

And let us not forget that preservation—the keeping of things in

perpetuity—is a goal in itself. The recently promoted idea that museums should only keep collection material that they can “use” is not valid, given the social contract that underlies the philosophy and history of museums and similar institutions. The preservation of the material culture of the past and present has intrinsic value, because it is impossible to predict the significance that such collections might have in the future. (This does not imply, however, that every object owned by a museum belongs there!)

The five museum functions entail a huge amount of behind-the-scenes effort. Piling everything into a big room—as in the last scene of *Raiders of the Lost Ark*—is not an option.

Getting organized

Turning a number of individual items into a meaningful collection requires organization, starting with a mission statement that defines the goals of the institution and, depending on how it is written, may place limitations on what will be collected. A written statement describing the purposes of the museum and the collections that serve those purposes is fundamental to the institution’s operation, providing the framework within which all the five museum functions take place.

Collections themselves must be organized, researched, documented, catalogued, numbered, labeled, photographed, and stored neatly where they can be retrieved without a lot of searching. Virtually every museum, no matter how small, has staff, paid and/or unpaid, to carry out those tasks.

Even without access to a conservator, many museums provide reasonably safe and organized storage spaces, adopting practices that help ensure objects’ safety during routine handling and exhibition. For example, many collection custodians are aware that acid-free materials—cardboard boxes, wrapping material, etc.—last much longer than their acidic counterparts and will prevent premature deterioration of paper, metals, and certain other materials. Rehousing objects in acid-free boxes is a common practice, and extremely effective in retarding deterioration. Knowledge of simple best practices in collection care can come from academic training, the museum literature, presentations at professional meetings, or stand-alone courses. Common sense also helps.

Reaching this point in the development of a museum is a big job, and a great accomplishment. Some readers undoubtedly feel that their institutions have arrived at this enviable position. Others, maybe not.

Doing better: preservation projects

This book's overarching goal is to enhance the usability of collections and lengthen their useful life, promoting the institutional mission. But making changes in institutional practice can be complicated. There is no simple way to decide what is best for any particular object, and improvements come in many shapes and sizes.

A preservation project may be something as simple as a change in procedure, such as a new lighting schedule that will reduce collections' exposure to light. It may involve a review of policies on pest control, transferring a photograph collection into archival enclosures, or installing sweeps on storeroom doors to keep out dust.

Large projects include those that strengthen the protective function of buildings, like repointing masonry or replacing roof membranes. Others involve upgrading collection housing by redesigning storage rooms to increase usable space, improve access, and/or enhance collection safety. Sometimes, of course, major construction or renovation is involved.

The ultimate preservation project is a broad-based initiative to assess the current state of collections and create a step-by-step plan to deal with all sorts of preservation-related issues including, often, the examination of collections for possible conservation treatment and environmental monitoring to determine if environmental improvements are needed. A long-range conservation plan puts into priority order topics to be dealt with one at a time, at whatever pace is workable.

THE NEED FOR OUTSIDE EXPERTISE

At some point in the evolution of collections-holding institutions, questions arise about how to improve preservation. There may be questions, for example, about whether existing environmental conditions are adequate to prevent certain kinds of damage or

deterioration. A common concern is possible light damage to exhibited materials.

Getting answers to these questions and planning remediation typically require outside expertise.

One strategy recommended in this book is to arrange for an on-site visit by a conservator with training and experience in collection care—a “conservation assessment,” as discussed in Chapters 4 to 7. After examining the institution’s collections and facilities and meeting with staff, the conservator drafts a report on her findings and a prioritized list of recommendations for action. Usefulness of the report depends on both accurate diagnosis of problems and the conservator’s ability to fit solutions to the unique aspects of the host institution, so the choice of conservator is key.

Conservators can also be called upon to deal with individual problems, and experts in historic preservation, storage furniture, lighting, and a host of other areas may be of help as well.

Museums should have a roster of go-to professionals including those who deal with building elements—a preservation architect, electrician, furnace maintenance company, lighting expert, and exterminator, among others. Since these contractors may not have museum experience, they need to be introduced to the institution and its special needs. Some contractors need to be told that only staff can touch or move collections! If necessary, a conservator can be called on to explain any technical issues specific to the institution and/or to review the contractor’s proposal.

The absence of certain professions in-house is, naturally, one reason that consultants are needed. To begin, let’s look at some of the reasons that the long-term preservation of collections requires the experience of staff along with the professional expertise of many different professionals outside the museum.

THE UNIQUE CHARACTERISTICS OF YOUR INSTITUTION

Any time that changes are planned for an institution, optimal outcomes require that planners take into account the unique characteris-

tics of the institution. This goes double when outside consultants are involved.

The specific characteristics we are talking about include the mission, the physical plant, the collections, the constituency, day-to-day routines, and the institution's history. Let's look at a few of the ways that these "unique characteristics" can affect preservation planning.

Generic advice isn't enough

Standard preservation measures are by definition generic, based on general recommendations. But each collection and each building is unique, and generic measures cannot satisfy unique problems.

Preservation measures need to be tailored to the specific needs of the collections at hand, the institution, and the buildings, rather than following a one-size-fits-all approach. Generic recommendations that museum staff may find in the literature or online are likely to be insufficient to safeguard the relatively small percentage of collection objects that are extremely fragile and/or environmentally sensitive, while being unnecessary for the many types of objects that are inherently robust. Reliable and site-specific information is needed to assure that preservation projects produce real improvement over time, and with no unexpected negative effects. Without it, wasted time, wasted effort, and wasted money—not to mention damage to collections or buildings—are all too likely.

For example, requiring art handlers to use cloth gloves to handle every object does not necessarily improve collection safety. Requiring tight control of relative humidity for a collection of porcelain is nothing less than silly, and a waste of resources. As we will see later, there is no such thing as one level of temperature or relative humidity that is optimal for all collections.

Specialized expertise is needed to address the sensitivities of a collection in the context of the building within which it is housed, given an understanding of the building's protective capabilities (or lack thereof!) Collection material deteriorates over time for all kinds of reasons: light exposure, airborne dust, pest infestation, the chemistry of the object's materials, fluctuating relative humidity levels, the demands of travel, and mishaps such as air conditioner leaks. Collections that have been stored away for some time are often

grimy, and the grime itself can be a precipitator or accelerator of deterioration. The consequences of these agents of deterioration vary widely for different objects. Given an identified risk, the best way to lessen the likelihood of actual harm is not necessarily obvious.

It is not enough to know that the health of wooden objects, for example, is adversely affected by changes in relative humidity. Teak does not respond the same way as oak. Painted wood does not respond the same way as raw wood. Painted sculpture from the New Guinea rainforest does not respond in the same way as a painted sarcophagus from the Egyptian desert. Specialized expertise is required to propose measures that are the most appropriate to retard deterioration and prevent damage for each particular collection, as well as to assess the efficacy of measures already taken and to assure that money is not spent on measures that are ineffective or even harmful.

Particularly crucial is expert judgment on the levels of relative humidity and temperature most suitable for long-term preservation of the bulk of the collection, for the structure of the building, and for the resources of the institution. Special enclosures with passive environmental controls (see Chapter 14) can be designed for particularly sensitive collections.

Specifying environmental parameters based on so-called “rules” (i.e., 70° F. and 50% relative humidity) can lead to any number of problems, including financial ones. Altering the museum environment can harm the building structure, or improve the prospects for one kind of object while accelerating deterioration for another. (This matter is discussed in Chapter 13.)

Museums buildings are often unique

A large percentage of American museums are historic house museums, and the buildings of many other museums have *become* historic by the passage of time. Many others are in iconic buildings of some kind. This means that even routine building maintenance has unique requirements. “Historic fabric” (an architectural term for all “original” material) is everywhere, and even out-of-date electrical systems may have historical value. Historic construction materials are often different from what modern-day contractors are used to.

Other requirements, such as temperature and relative humidity controls that have to work around the clock, are unlike those in most other buildings. So putting together a team familiar with both the building and its collections, and working closely with outside experts—including a conservator—is an important strategy for preservation.

The way each museum functions is unique

Museums have different missions that influence best practice in a variety of areas, from lighting to storage methods to how holidays are celebrated. In addition, each museum has a human history that affects how it does business. A shared understanding of both is required to move forward, and no amount of expertise from the outside can help if these factors are not taken into account.

Does the museum have the resources to carry out fundraising and, if so, to what level? Is there a budget line to be used for small projects every year? The split between institutions that do long-range planning and major building projects and those that prefer to work incrementally is an important one. Which kind are you?

Understanding the day-to-day activities of an institution is also vital to decision-making on collection care. How often are exhibitions changed? How much access to stored collections is needed? What facilities are required to handle large school groups or independent researchers?

The behind-the-scenes story of the people running an institution may be more important than any other single factor. Do the board, administrators, and staff have a shared view of the museum's mission and projected future? Do they welcome change, or do they do their best to thwart it?

THE REALITIES OF MUSEUM LIFE

Much of what goes on in an institution's offices doesn't relate to any of the five "official" museum functions, but rather to the urgent matter of keeping the doors open. These efforts involve the museum's finances, its reputation with the public and outside professionals, staff morale, and the physical soundness of its

buildings and grounds. They also involve relations with visitors and the surrounding community, as well as with VIPs like politicians and donors. It can be difficult to find time for long-term goals like preservation or academic matters when so much else is pressing.

And institutional budgets are tight. Having collections at all—paying for the real estate they occupy—is already a financial drain. The cost of preservation projects is rarely offset by any revenue enhancement, and outside money is required. But fundraising presents a substantial time commitment in itself, and for every successful grant application there are many rejected ones.

Yet another obstacle to preservation initiatives is that change is uncomfortable, and some staff may feel that calls for change are implied criticism of the way they have been doing their jobs.

However, the time when a museum can responsibly accept the status quo is long gone, and “new and improved” is the order of the day. Just as in a profit-making business, ongoing reevaluation and change are necessary to keep up with the competition, with technological innovation, with shifts in what customers want, and with what the profession identifies as best practice. Constant change is the new normal and does not necessarily imply fault on the part of the staff.

Another problem is that, in the absence of an in-house conservator (that is, in probably more than 95 percent of American museums), the care of collections may not be in anyone’s specific job description. Even when one or more conservators are on site, their time may be taken up with the examination and treatment of individual objects, and conservators who spend their time doing treatments may not have been trained in preservation issues. The most fundamental aspect of museum preservation—collection safety—can fall through the cracks unless the relevant tasks are formally incorporated into someone’s job description.

Even in large museums with many conservators on staff, conservators are under pressure to carry out treatments and may not have time or the inclination to deal with preservation issues. Collections managers and technicians have plenty to do as well. Dealing with collection care requires someone with knowledge, with time, and with the official responsibility to make it happen.

It is easy to proclaim the importance of collection preservation, but, in truth, its place in many museums—past the “don’t throw it out” stipulation—is problematic. Preservation is all too often the only one of the five museum functions that relies entirely on grant money rather than being provided for in the institution’s annual budget.

Much of this book will discuss strategies to help fit preservation more comfortably into the life of museums. We will also be discussing how to make behind-the-scenes activities a draw for visitors, and how conservators can help to enrich the usability of collections.

The next chapter, however, is a “getting-to-know-you” view into the world of museums and the people who work there.

2

The world of museums

Improving preservation in museums requires an understanding of how they work and the difficulties they face.

Museums are complex institutions.

They provide a home for cultural property representing the heritage of the human race. They house natural specimens that illustrate the biological and geological history of our planet and beyond. Museums also serve as venues for recreation and education.

Museums are also workplaces for staff that, in large museums, can include accountants, attorneys, carpenters, designers, cleaning staff, engineers, maintenance workers, marketing and public relations specialists, photographers, security guards, and special-event coordinators, as well as educators, curators, administrators, and conservators.

The complexity of modern museums may be most apparent in large institutions, but it does not diminish with smaller size. Small museums may not have specialized staff, but the same tasks still have to be carried out. Legal documents have to be drafted and circulated to donors. Collection photographs have to be taken even if they are done on a bridge table in a corner of the basement. Parties have to be planned, even if it is the director who decides the historically correct flavors of ice cream to be served at the annual 1900-style July 4th lawn party.

A ringing telephone interrupts every task.

THE CAST OF CHARACTERS

Three different entities—collections, visitors, and staff—share museum buildings on a daily basis, and each lays claim to designated spaces within the building. Collections have storage rooms. Visitors have checkrooms, cafes, shops, restrooms, and lobbies. Staff have offices, workshops, studios, reference libraries, places for their personal belongings, and sometimes separate eating areas.

A fourth group, which often works unseen, is the board of directors or trustees. No matter how seldom board members may appear on site, they are responsible for the legal and financial health of the institution. It may seem that the board's concerns contribute little to daily decision-making but, in fact, board-established policy sets the parameters within which everything is carried out, and when board members speak, they have to be listened to. Staff/board relationships are important for both sides; one-sided decisions are not a good thing.

The place where all parties' interests come together is the exhibition gallery, which is museums' defining feature. The multiple interests that surround exhibitions are a good example of the many, and sometimes conflicting, goals that complicate museum decision-making.

In their simplest form, exhibitions are displays of things. In reality, however, exhibitions do not simply consist of rooms with stuff in them. Exhibitions have an internal logic that justifies putting this particular group of objects together at this time, which is related, in turn, to the institution's mission.

Exhibitions have many stakeholders, which makes the complications both physical and conceptual. The mission of the institution justifies the subject matter of the exhibition and the messages conveyed by the labels and educational material. Curators are responsible for setting the agenda for exhibitions within the parameters of the mission, choosing what is to be exhibited, providing explanatory information, and perhaps writing catalogues or commissioning others to do so. Designers create the layout, exhibition methods, colors, and lighting. Conservators assure that exhibited material is in condition to serve the goals of the exhibition, and that exhibition methods keep

the exhibited items safe. And preparators and others put the whole package together. Educators and fundraisers arrange special events, lectures, school visits, and opening parties. Public relations people spread the word to encourage people to visit.

All these activities are carried out based on the staff's knowledge of the museum's constituency—their ages, preferences, and anticipated level of education. Design even depends to some degree on the size of the anticipated visitorship; bad crowd-handling can imperil collections and frustrate visitors. The requirements of donors and the possibility that a temporary exhibition might travel elsewhere can also add complications.

Despite the obvious differences among museums, all operate within the same culture. Much of what happens in individual institutions comes from the same set of shared attitudes and expectations among museum professionals, the general public, and the large number of different constituent groups that interact with museums. Limitations brought about by a number of factors, including economic, legal, and regulatory realities, are also widely shared.

THE STATE OF TWENTY-FIRST CENTURY MUSEUMS— GOOD AND BAD

By many measures, museums and other cultural institutions are in good shape. Museums in particular seem to be recognized more and more as important players in community life and local economies— attracting tourists and educating both children and adults. In the United States, at least, new museums are starting up at a surprising rate. The twentieth-century tendency to see museums as unappealingly elitist institutions has significantly diminished.

Despite economic downturns, large and astoundingly expensive museum buildings are still being built, many as expansions of big-city art museums. Other trends bring us “idea” museums, or memorials to single events. Human rights, terrorist attacks, climate change and the Tuskegee Airmen all have their own museums. And historic structures—not just houses, but train depots, one-room schoolhouses, jails, and mills—are being turned into museums in towns and cities of all sizes.

At the same time, institutions are forced to compete against each other for grants, for donations, and for visitors. They also compete against video games, sports, theme parks, and the many other distractions of modern life. In order to increase visitation, institutions whose primary clientele is local are under pressure to produce new exhibitions and to stage events, some of which, inevitably, have little to do with their mission. Many institutions are adding retail space, primarily food service and shops, in order to keep their visitors on site longer and spending more money per visit. The funds generated by hosting singles events and renting space for weddings and children's parties are helping many institutions to keep their doors open. Even with all that, a downturn in the general economy can put a financially tenuous museum out of business for good, with attendant job losses.

Museums of all kinds are under increasing pressure to be "relevant" and "visitor-friendly," particularly to attract young people and family groups. A focus on education intensified in the 1970s, and school groups are now a major visitor segment for many museums. Doing this job well requires more than open doors. It may involve demonstrations of cooking or crafts, like textile-making, tours on specific topics, and special literature to help teachers integrate the museum visit with their curricula. School visits can also require a parking lot for buses, a place for eating lunches, storage for lunch boxes, backpacks, wet umbrellas and raincoats, and, often, a staff member devoted to scheduling appointments and overseeing the visits.

Like many other institutions, museums are expected to have an online presence in an ever-increasing array of social media. Staff blogs and comprehensive online catalogues with eye-catching photographs of entire collections are almost *de rigueur*, notwithstanding the huge time commitment that these things entail.

Despite the work involved in these new projects, the number of curatorial and collection care staff, if anything, seem to be decreasing, while staffing levels in development offices (a euphemism for fundraising that is gradually being replaced by the even more obscure "institutional advancement"), public relations, and member services are growing.

Although the expanded activity in museums inevitably leads to increased operating costs, most grant funds are given to support new projects, not museum operations or salaries. Reliance on private donors often involves expenses for social functions, and sometimes pressure about how the money is to be spent. Some museum supporters prefer to give collections rather than money, or pressure an institution to take collection material that is not a good fit under the institutional mission. Few museums can afford donations that require conservation treatment or special care, and the real estate that each new acquisition might take up is, in its own way, an undue expense.

The rising visibility of museums, as gratifying as it can be, has certain consequences that can negatively influence collection care by, for example, increasing the use of collections and the workload of staff.

The pressure to capture the interest of visitors leads to temporary exhibitions—the more, and the flashier, the better. Impressionist paintings, dinosaurs, mummies, and anything made of gold lead the list of sure-fire hits. Few institutions can come up with reliable winners using only their own material, so loans become necessary. This, however, involves costs for crating, trucking, and insurance, not to mention the extra efforts of staff.

Quantifying the success of any cultural institution is of necessity based on numbers—notably visitor statistics. After all, how could anyone quantify the amount of aesthetic pleasure engendered by a museum exhibition? Projected visitor numbers are part of many grant applications. Pressure to attract more visitors can, understandably, affect the choice of exhibitions, for better or for worse.

Financial pressures, including the push to increase visitation, are therefore a constant fact of life for many, if not most, cultural institutions, and those pressures affect everything they do, including preservation.

Museum life can be difficult and does not pay particularly well, but many young people are entering the field nonetheless. Society owes museum workers a debt of gratitude. In the author's experience, institutions remain viable and collections remain safe largely as the result of their dedication.

HISTORICAL SOCIETIES AND HOUSE MUSEUMS

A large proportion of American collections-holding institutions are historical societies and house museums.

Historical societies are associations of people who share an interest in the history of, for example, a particular locality or region. In the tradition of hundreds of years of “amateur” intellectuals, they carry out research and present (and sometimes publish) papers on their findings. Common topics are the history and genealogy of town founders and the history of early businesses or industries. Some historical societies also research indigenous populations before European settlement; others go even farther back into regional geology.

Historical societies are not in themselves museums, although some operate museums, and some are housed in historical structures which may or may not also *be* museums.

Many historical societies are involved with genealogy and become worldwide—or at least national—experts on specific family names that feature prominently in their pasts. Some of these, naturally enough, are called genealogical societies rather than historical societies.

Over the years, groups such as these often amass collections of old and out-of-print books, unpublished manuscripts, or old things donated by members or others. Sooner or later, some decide to start a museum with the artifacts they have collected, often requesting that people nearby look through their attics for old things to donate. This is an ongoing process; at any given time, some number of historical societies across the United States are in the process of establishing their first museum. For some societies, an interim arrangement is to display artifacts in a special room in a public library (often referred to as the “History Room”) where they hold their meetings.

Many historical societies not only preserve and educate, research and exhibit, but also serve as centers for community life. Their holdings may include full runs of local newspapers and town archives of legal documents, obituaries, and property ownership records. With diligent

indexing, these collections become important resources for local attorneys, genealogists, authors, historians, and other researchers.

House museums often come into being when an old house or other building is threatened, and townspeople fight for its preservation. The local historical society is often at the center of the effort and may end up as steward. Adaptive re-use is a possibility, where the house is used as office space for the society and perhaps other local non-profits. More commonly, however, the house is turned into a museum. Thousands of historic houses in the United States, as well as schools, jails, mills, doctors' offices, and the like, are being cared for, many with little or no professional help.

Conservators and other museum professionals called in to work with historical societies and house museums need to be aware that these institutions' staffing, exhibition types, typical problems, and missions vary in many ways from those in large collections-based museums. For example, common methods of dealing with temperature and relative humidity, lighting, storage, and security for collections may not be possible in old buildings, and environmental control for human comfort is not likely to be historically appropriate. Even cataloguing and interpretation become difficult. It has to be determined, for example, whether a 1955 aspirin bottle in a medicine cabinet should get an accession number. How do you convey information on the history of a house and its inhabitants when there is no room for a museum-style exhibition?

Financial stability is also often particularly problematic for house museums. Local enthusiasm for historic preservation can lead to generous donations to accomplish the founding of a museum, but ongoing expenses for management and building upkeep are commonly higher than anticipated.

A colleague of the author advised that the text of this book not differentiate between paid (and presumably trained) staff and unpaid volunteers, as doing so would brand the volunteers as second-class citizens. However, with many historical societies and house museums, the shoe is on the other foot: Volunteers carry on the long tradition of amateur experts—pursuing knowledge, publishing their findings, and benefiting their communities. And even when they hire

staff to provide expertise (many have a part-time “professional” director), volunteers often do the heavy lifting.

Because most historical societies and house museums are principally run by volunteers, their relationship with professionals can be difficult, and the transition when a professional is first hired can be painful. Hurt feelings can arise even when ideas about how to improve things originate with existing volunteer staff, and the situation is even more fraught when the ideas come from a newly-arrived professional.

Paid staff in this situation are often young adults who have moved to the site for the job. Ambitious professionals are not likely to stay in one place for more than a couple of years, however, unless they have settled in with a family. The turnover can initiate yet another period of discomfort for the home team.

Historic buildings have major problems with building maintenance, for obvious reasons. Although many are kept up by their owners and go more or less directly from family home to museum, making old buildings suitable for public use can be a big job, and ongoing upkeep is expensive. Assuring structural soundness and human comfort without eliminating the historic integrity of the structure is complicated. When it is done right, nobody takes notice, nor does anyone get much (if any!) credit for diligent, often loving, attention to the building’s upkeep. On the other hand, when maintenance is neglected, or done badly, the results can be disastrous. Maintenance on an old building using modern materials and techniques can also be a recipe for disaster, which complicates the process because local workers have to be told that they can’t do things the way they usually do.

Security is yet another difficulty for house museums. Where visitors go through the house without staff, books and small decorative items can disappear. Even when visitors are accompanied by a docent, a large enough tour group will make it impossible for the docent to keep an eye on visitor behavior while doing his or her job.

House museums have other problems. Their origins as buildings saved from destruction sometimes leave them with no museum-style mission other than the plain fact of their existence. Often without

furnishings related to early residents, sometimes without even historic interiors, there may be nothing of any historical value other than the exterior. If the building was long abandoned, its physical condition may border on the dangerous. If it was in use recently, it is likely to feature a patchwork of original and modern elements. If members of the family who owned a house are available and interested, they can be a source of funds and information. But they can also be unduly possessive, insisting that nothing can be done unless the family agrees to it.

The mixture of periods that a historic building and its contents may represent often confounds “normative” museum practice. There is seldom any way to recreate an earlier state of a house accurately—or even approximately—when there is little or no physical evidence left. Some buildings have individual rooms that may be described as authentic, but not all from the same period. These are difficult to interpret in ways that visitors can readily understand.

Complex interpretations are made even more difficult because house museums seldom have any space for interpretive galleries. Family archives—letters, photographs, sales slips, and correspondence related to the construction and design of the building—are interesting to visitors but cannot be exhibited if all rooms are period exhibits or are needed for staff offices, workrooms, or storage.

When evaluating house museum collections, it is seldom clear what to keep and what to throw out. Many old houses have attics full of old mattresses, for example, or broken chairs. Discard is painful even if everyone is reasonably sure that the most recent things are of no historical value. Yet discard is particularly important when there is no space appropriate for collections storage, and where collections sometimes double as fire hazards or insect attractants.

House museums present unique problems from conservators’ standpoint as well. Aside from working with volunteers, unfamiliar elements for conservators in house museums include collections that are not exhibited in galleries and therefore cannot be protected in exhibition cases. Since historical accuracy is vital, there may be little choice for window treatments that protect interiors from daylight (see Chapter 15). Because many historical collections are important not for their rarity or beauty but as examples of common items from

people's daily lives chosen for didactic purposes, they do not have the kind of unique value that often drives conservation decisions.

The historic structure itself may be the most important artifact in the institution, which means that the options for alterations meant to improve the environment for the sake of the furnishings—or the comfort of visitors—are limited. Some parts of exhibits may be replicas or historically inaccurate—more Colonial Revival than Colonial. In addition to all that, the visitor experience may include crafts or cooking demonstrations in the historic structure, or candle-lit Christmas celebrations, all of which make conservators cringe because of the potential for damage from fire or from physical use of furniture.

ACADEMIC (COLLEGE AND UNIVERSITY) MUSEUMS

Museums within colleges or universities can have a wide variety of purposes. Among them are providing course material for art history and studio art classes; enriching students' study of history, literature, and religion; presenting exhibitions for students on topics such as personal health or current events; supporting museum studies courses; encouraging museum-going for the students' futures; impressing visiting families of prospective students; providing a safe space for student dating; and forging links with local residents. Gallery spaces for exhibitions of student artwork are also common.

Another potential role of academic museums is to help other departments that have their own collections. Chemistry departments often have historic instruments; botany departments have plant specimens; geologists have rocks and minerals. Institutional archives are likely to have documents telling stories of the founders of the institution and designs of its buildings. All these are ripe for museum exhibits and for student projects.

Despite the richness of these possibilities, academic museums can lead a perilous existence. If they succeed, as many have, in acquiring a public identity separate from that of their host institution, with substantial visitation from off campus, the college administration may come to think that they can function as stand-alone museums—without any school funds. Where academic museums have their own

boards of trustees, this option may, unfortunately, seem even more plausible.

Some academic administrators have little idea of why an institution of higher learning has a museum at all, and may be tempted to see the collection as an asset to be monetized in order to shore up the school's budget. The benefits of using real historical objects and art in classrooms may have to be demonstrated openly and repeatedly.

The author once worked in a college that owned, among others things, a helmet from the time of the Trojan War. Imagine discussing the Iliad while something like that is in the classroom!

Whether a college or university museum has a modest collection primarily of prints and drawings or is a class-A institution with a world-wide reputation, it needs to ally itself with many departments and provide easy access to major portions of the collection. The museum should also be available to provide personal instruction in handling, examining, and understanding collections. This can be time-consuming; fragile objects cannot simply be sent to classrooms via campus mail. The museum must establish protocols so that students and faculty can have meaningful contact with collection material while ensuring the needed security and safety of the collections.

