

# Research Reports

CULTURAL HISTORY

## Stitch by stitch, a project team is preserving an American treasure

By Brenda Kean Tabor  
Special to Research Reports

It wasn't until the dawn's early light, when the smoke from the long bombardment by British cannons had begun to clear, that an American patriot behind enemy lines could discern, in the distance, the faint sign of his country's victory.

Moved beyond speech, he took a rumpled envelope from his pocket and began to record the words that "his heart spoke." For he beheld, high over Fort McHenry that morning of Sept. 14, 1814, the symbol of freedom, independence and democracy for which thousands had given their lives. Flying in the wind, tinged with smoke and gunpowder, the Star-Spangled Banner was still there.

The Star-Spangled Banner, with its story of our emerging nation, is being preserved at the Smithsonian's National Museum of American History, Behring Center. For the last three years, a team of conservators, under the direction of Suzanne Thomassen-Krauss, chief conservator of the Star-Spangled Banner Preservation Project, has been hard at work on the conservation of the flag. While the team is not repairing the 188-year-old flag to look like new, it is carefully cleaning and stabilizing it, preserving it for future generations.

### Historical background

The huge woolen flag was commissioned in 1813, at a cost of \$405.90, from flag-maker Mary Pickersgill. After the battle, the flag remained in use at Fort McHenry and then became the property of the fort's commander, Lt. Col. George Armistead, whose family kept it as an heirloom.

During this period, pieces of the flag were occasionally snipped off and given away as mementos. Some of those pieces have been loaned or donated to the Smithsonian and recently put on display, along with the Star-Spangled Banner itself, which remains on view to visitors in a special conservation lab during the preservation project.

The flag itself was first lent to the Smithsonian in 1907 and then donated in



This first known photograph of the Star-Spangled Banner was taken at the Boston Navy Yard on June 21, 1873, presumably by Commodore George Preble, a naval historian and author of the first history of the American flag, published in 1872. Preble corresponded with Georgiana Armistead Appleton when he learned that she possessed the original Fort McHenry flag. He had her permission to borrow it so that it could be photographed for the second edition of his book. Preble found the flag to be too delicate to withstand flying on a flagpole, so it was hung from the second story of one of the Navy Yard buildings.

1912 by Eben Appleton, Armistead's grandson. In 1914, the Smithsonian hired flag restorer Amelia Fowler to strengthen the flag for display, and she oversaw the attachment of a linen backing.

The flag, no longer rectangular after its years of being flown, was altered to create a more rectilinear shape. Loose pieces of bunting were added to the uneven edge,

while folds and pleats disguised the areas that were too full.

Because Washington, D.C., was a possible target of attack during World War II, the flag was taken to a government warehouse in rural Virginia and stored for two years. It was later returned for exhibition in the Smithsonian's Arts and Industries Building, where it remained on view until 1964. The flag was then moved to the spe-

cially designed Flag Hall in the Smithsonian's new Museum of History and Technology, now the National Museum of American History, Behring Center.

### Assessing its condition

In order to protect the flag from excess exposure to light, dirt and dust, the museum constructed and installed an opaque screen in front of the flag in 1982,

when the condition of the flag was first evaluated. The screen in front of the flag was lowered once every hour for a short music presentation.

In 1994, when its protective mechanical screen broke, the flag's condition was reassessed, and the preservation project was initiated. The location of the flag in Flag Hall—across from the National Mall entrance doors, which are used by most of the museum's 6.3 million annual visitors—had caused further deterioration. The constant opening of the doors had exposed the flag to dirt, debris and sunlight.

In 1996, the museum organized an international conference of historians, curators and conservators to discuss options for preserving the flag, including how to handle the flag in its fragile state, how to choose the best treatments to preserve it and how to house it appropriately after conservation.

"Samples of the flag's fibers had already been sent to three laboratories, which consistently found that the mechanical strength of the flag had deteriorated," Thomassen-Krauss says. "There was no way of knowing the original condition of the materials, which may have started out inherently weak.

"The flag's fibers had only 20 percent of the strength levels you would expect for new fibers," she adds. The question then became: was it possible to take the flag down without damaging it further?

### Removing the flag

"We knew that a 5 percent elongation of the fibers was permissible," Thomassen-Krauss says, "which means that they could be stretched 5 percent more without breaking. The museum decided to take the flag down while still on its frame, which had been constructed on-site, and then remove it from the frame and roll it up. We calculated that if it were rolled onto a 2-foot-diameter tube, the elongation would be just .7 percent."

It turned out that the frame was not as structurally sound as the conservators would have liked, and they were concerned that the structure would fail when its weight was shifted. "We also had to make sure that, if it fell, it wouldn't cause any structural damage to the museum," Thomassen-Krauss adds.

I-beams were attached to the frame to support it while it was lowered. Wheeled

*'Flag,' continued on Page 6*

**Zoological research** ■ Katherine Ralls still remembers the strange stares she got from high-school classmates when she announced that she wanted to be a biologist. In the 1950s, a woman scientist was almost unthinkable, she says. “I remember that one of our senior-class assignments was to interview someone who was doing the kind of work you wanted to do as a career,” says the 62-year-old research zoologist at the Smithsonian National Zoological Park’s Conservation and Research Center. “I went to the University of Southern California and interviewed a scientist who was studying ground squirrels in the Arctic. When I came back and gave my report, my class thought that I was crazy.”

While Ralls’ mother was encouraging about her interest in science, her father was not. “In fact,” Ralls says, “he, like many men back then, didn’t even think that women should go to college.” But she insisted that she wanted to be a scientist. As an undergraduate at Stanford University majoring in biology, Ralls was a stellar student, often scoring higher than her male classmates, she says. “Yet, when I asked my genetics professor for a recommendation for graduate school, he wrote in the letter, ‘If you think that women should go to graduate school, this one will probably do as well as any.’”

After getting a master’s degree from Radcliffe in 1962, she earned a doctorate from Harvard University in 1965. Since that time, Ralls has become a respected scientist and



Katherine Ralls (Jessie Cohen photo)

the recipient of several prestigious awards. She has received the Merriam Award from the American Society of Mammalogists for lifetime achievement in research on mammals and the Laroc Award from the Society for Conservation Biology for sustained achievement in applying science to real-world conservation problems.

Ralls’ current research projects include work on endangered and threatened mammals in the western United States, particularly California sea otters and San Joaquin kit foxes. “As a native Californian,” she says, “the biodiversity of this state

mattered more to me than biodiversity anywhere else. I wanted to help preserve this biodiversity for future generations, including my granddaughters, who live in California.”

By studying the movement pattern of California sea otters, she learned that they travel much farther offshore in deeper water than previously suspected. Thus, Ralls helped facilitate the passage of legislation prohibiting setnet fishing—which sometimes kills sea otters—in waters shallower than 30 fathoms throughout most of the species’ range in California. Now, she is trying to determine why the sea otter population continues to decline in certain areas.

Two recent \$20,000 grants—one from National Geographic and the other from the Alternatives Research and Development Foundation—will allow Ralls to continue her noninvasive research on the San Joaquin kit fox. These nocturnal creatures burrow and live in underground dens, making them difficult to locate, Ralls says, because they can survive out of sight. Last summer, she began using specially trained dogs to locate and “identify” the scat of these kit foxes. The dogs detected scat in more than 350 spots, and after Ralls collected and rushed the fresh scat back to the National Zoo’s molecular lab, Geneticist Jesus Maldonado determined that the canines had, indeed, positively identified the scat as those belonging to San Joaquin kit foxes. Ralls’ work, aided by former graduate student P.J. White and current graduate student Deborah Smith, has been widely used in recovery planning for this species.

Ralls has enjoyed a career devoted to mammalian research. “It’s amazing to me,” she says, “that people have paid me all these years to do something that I absolutely love.”



Since its founding, the Smithsonian has constantly struggled with finding room to hold its collections. This historic photo, circa 1890, depicts an overcrowded storage room in the National Museum, which is now the Arts and Industries Building.

### COLLECTIONS

## A new book tells why certain objects find a home at the Smithsonian

By Michael Lipske  
Special to Research Reports

**Y**ou mean to say you’ve never heard of Joseph Francis and his remarkable life car? So much for fame. A century ago, when travelers feared shipwrecks the way they now dread airplane crashes, the life car—used to ferry wreck survivors to safety—was a marvel of maritime technology.

A Francis life car that rescued 199 people from a shipwreck was acquired by the Smithsonian in 1890. It quickly became one of the National Museum’s most popular exhibits. Its inventor-hero “was the Jonas Salk of the 19th century,” says Steven Lubar, chair of the Division of the History of Technology at the Smithsonian’s National Museum of American History, Behring Center.

But while Jonas Salk and his polio vaccine are still famous, Joseph Francis and his life car are mostly forgotten. A lesson from all this? “History doesn’t change,” Lubar says. “But what is considered important from America’s past changes over time.”

That ever-shifting sense of what is important from the past is the subject of *Legacies: Collecting America’s History at the Smithsonian*, a new book by Lubar and Museum of American History Project Historian Kathleen Kendrick (see “Off the Shelf,” Page 8). Recently released by Smithsonian Institution Press, the richly illustrated *Legacies* tells the stories behind more than 250 of the Museum of American History’s 3.2 million artifacts, including many that have never before been photographed for publication.

George Washington’s battle sword and a piece of Plymouth Rock are covered in *Legacies*, but so are Archie Bunker’s easy

chair and a denim jacket formerly worn by a Hell’s Angel called Hairy Henry.

The authors focus on how and why such objects become museum artifacts and the ways that objects once considered unimportant can grow in historical value while others, like the life car, seem to lose their luster.

*‘Collecting,’ continued on Page 6*

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# The genius of Sam Maloof: Renwick's retrospective offers poetry in wood

By Angela Cervetti  
Smithsonian Office of Public Affairs

Amid crates and wrapping paper, Robyn Kennedy stands alone at last with the rocking chair. The chair, fairylike and perched on sleek rockers that trail out behind like a swallow's tail, is made of hardwood so exquisitely sculpted and polished it appears as soft as moiré silk.

"You want to touch it, don't you?" Kennedy says, reading the writer's mind. "Everyone does. That's the genius of Sam Maloof and also one of the challenges of this exhibition."

Kennedy is the exhibition designer for "The Furniture of Sam Maloof," which opened at the Smithsonian American Art Museum's Renwick Gallery on Sept. 14 and closes Jan. 20, 2002. It is the first full-scale retrospective of furniture crafted by a man who, although labeled an artist and a genius, sees himself in simpler terms.

## The artist

"I don't consider myself an artist. I never have," Maloof once said. "I'm a furniture maker, I'm a woodworker...that is what I am." The world would say otherwise.

Maloof's furniture is collected by individuals with the time and money to acquire it: a rocking chair can cost up to \$30,000 and, with a growing backlog of orders, take up to four years to complete. His pieces also are in museum collections, including the Renwick, New York's Metropolitan Museum of Art, the Philadelphia Museum of Art, the Los Angeles County Museum of Art and others.

In 1985, he was the first craft artist awarded a MacArthur Foundation Fellowship, or "genius grant," which is usually awarded to scientists, scholars and authors. The \$375,000 grant stipulated only that he continue his work.

Maloof is credited with crafting the first ergonomic rocking chair for a client with lower-back problems. Using his body as a measure, Maloof took a piece of wood, held it against his own back and curved it to fit, creating what has become his trademark ergonomic spindle. His chairs with this design can be found in the Museum of Fine Arts in Boston, the American Craft Museum, the White House, the vice president's mansion and President Jimmy Carter's office in Atlanta.

"The Maloof rocking chair is not just the most comfortable ever devised, it also is a creation of rare beauty," Exhibition Curator Jeremy Adamson says. "Of course, that is true of all of Sam's furniture. It is this blend of functionality and beauty that has influenced young artists and

caused many furniture makers to imitate his work."

Still, in spite of Maloof's talent and renown, there has never been a full-fledged exhibition of his work until now. "He had participated in a lot of survey exhibitions and small shows," Adamson says, "including the Renwick's 1972 opening show, but nothing comprehensive since. We felt it was time."

## Researching the objects

As a first step, Adamson went to Alta Loma, a small community east of Los Angeles, where Maloof lives in a house that attracts 3,000 visitors a year. "It is a magical spot," Adamson explains. "It is a meandering series of rooms filled with ceramics, weavings, baskets, sculpture, paintings and, most important, his furniture. It was an encyclopedic collection."

But unlike an encyclopedia, there didn't seem to be any particular order. "It was completely irrational," Adamson adds. "He lives an entirely intuitive and organic life. He works until he's tired and then he stops. When people come over, he talks. He does what he feels like all the time."

Still, Adamson knew he had a show. "The material I found was wonderful, but we had to figure out how we were going to approach it," he explains. Adamson preferred a comprehensive approach. "To understand the work, you have to understand the man, the influences and the times in which he lived," he says.

But getting to know Maloof was not easy. Though an affable man, Maloof could be less than articulate about his craft. "I would ask how he came up with a particular refinement, and he would say, 'Well, you know, like

that,'" Adamson recalls. "Thank goodness for the treasure trove of records Alfreda kept."

Alfreda, Maloof's wife of 50 years, who died in 1998, was the artist's business manager and greatest source of encouragement. "She kept every letter from clients, every review of his work, photos and so on," Adamson says. "Without that, I would not have been able to write the book."

## The companion book

Dedicated to Alfreda, *The Furniture of Sam Maloof*, the companion book to the exhibition, takes the reader beyond the inherent limits of an exhibition. "I try to give an overview of the work and life of this artist, set it in the context of Southern California modernism and the contemporary American craft movement, and provide insights into woodworking," Adamson explains.

## Organizing the exhibition

As the book formed in his mind, Adamson selected the pieces for the show. "I would walk around Sam's house and put different colored stickers on pieces," he says. "It was crucial to keep a tight focus in the face of so many wonderful pieces."

This also proved a challenge for Kennedy, who worked on how to best present 65 pieces in the 5,000-square-foot exhibition space. "The physical arrangement depended on how we would tell the story," Kennedy explains. Adamson and Kennedy decided to take a chronological approach.

"We have a whole range of pieces—from very early to very recent," Adamson says. One chair is so recent that it's not even finished. "We wanted to present the process, as well as the finished product. We asked Sam to make a chair but leave it unfinished." The chair is displayed in front of a wall-size photo of the artist's workshop.

Kennedy also knew people would want to touch the furniture. "So we decided to let them," she says. "There will be one nonrocking chair in which visitors can sit."

Maloof himself would approve—he once forced curators to remove "Do Not Touch" signs near his furniture and replace them with signs that read "Please Touch."

## More on Maloof

For those previewing the exhibition from home, there is "Maloof on Maloof," a Web site curated by Timothy Wardell, editor of the exhibition's companion book.

"For the site, we wanted something very simple and compelling, something that would bring out the essence of Sam Maloof," Wardell says.

With only two months and almost no resources to set up the site, Wardell decided the best way to capture Maloof's essence was to divide the presentation into four sections. "There is Maloof on design,



Sam Maloof in his studio in Alta Loma, Calif., where, at 85, he still works daily. (Photo by Jonathan Pollock ©2001)

woodworking, craft and function, and a set of his quotes relating to each aspect, along with images of his furniture," Wardell explains.

The site also includes two videos. Produced specifically for the exhibition and made possible through a grant from the Smithsonian Women's Committee, a 10-minute video was filmed in Maloof's house and studio. The video also runs continuously in the exhibition.

The second video, a 10-minute Maloof interview, was originally part of "The American Woodshop," a show produced by Houston Public Television in 2000. "The interview deals with the practical terms of woodworking and shows Maloof demonstrating his technique and talking about his philosophy," Wardell says. "It is a unique opportunity to see him perform and get a sense of his personality."

## Finishing touches

Maloof came to Washington, D.C., a few days before the exhibition opening to spend hours polishing his furniture. When the exhibition opened, he guided people through it and spoke of his work in relation to this century's craft movement.

"Regardless of the fashion," Adamson says, "he kept making furniture that was both beautiful and functional, the way he thought furniture should be made. He is fierce in his integrity toward his work."

Maloof's fierceness co-exists with a natural modesty and affability. At 85, he recently married a long-time friend and client, bought a Porsche and seems to enjoy life with the intensity of youth.

"Years ago, I would get commissions, and some elderly clients asked me to try to finish the pieces before they died. Now they wonder whether their pieces will be done before I go," Maloof says with a laugh in the exhibition's video. "I liked it better the other way!"



Sam Maloof's double rocking chair is made of Fiddleback maple and ebony. ©1992 Sam Maloof, F.A.C.C. (Photo by Bruce Miller)

# Saving America's recorded voices before they are forever silenced

By Jesse Freedman  
Special to Research Reports

History was "silent" before the 1880s, says Richard Kurin, director of the Smithsonian's Center for Folklife and Cultural Heritage. There were no means by which sound could be recorded onto permanent recording media. Thus, an entire aural realm of human achievement—including sounds, speeches and songs—went unrecorded.

## A new heritage

America's sound heritage, in comparison to its written record, is excitingly new. It wasn't until a little more than a century ago that scientists and inventors developed the means by which sounds could be recorded. Suddenly, Americans were provided with a completely new and unprecedented way to capture their history.

As America's distinctive yet diverse voices emerged as national icons, the frequency with which our aural heritage was recorded increased dramatically. Wax, wire and aluminum recordings documented the experience of Jewish immigrants in New York, Native American ghost dancers on the plains and the stories of ex-slaves in the South, among a wealth of other items. America's historical record exploded with sound. Sadly, as quickly as that recorded history grew, it began to disappear.

As repositories for much of this noncommercial, unpublished recorded sound

Wax recordings of early jazzman Jelly Roll Morton, for instance, are currently unplayable as they deteriorate with age. Glass and acetate masters continue to crack, thus threatening invaluable national treasures, including the first-ever recording of Woody Guthrie's "This Land is Your Land." Even audiotapes documenting the songs, speeches and sounds of the civil rights movement are on the verge of loss as they become sticky and unplayable.

"These are powerful, unique recordings, vital to America's musical heritage," says Grateful Dead drummer Mickey Hart, who chairs the "Save Our Sounds" Leadership Committee, organized to help raise matching funds to support the project. "Preservation is important if these recordings are to speak to us and to our children. Neglecting these recordings will silence them forever."

## A joint project

Sound engineers and ethnomusicologists at the Smithsonian and the Library of Congress were unwilling to allow these recordings to steadily deteriorate. In September 2000, the two institutions launched "Save Our Sounds: America's Recorded Sound Heritage Project."

The two-year, \$1.5 million project, under the direction of Frank Proschan of the Center for Folklife and Cultural Heritage at



Saving historic recordings stored on deteriorating media is the work of Frank Proschan, shown here in the Smithsonian Center for Folklife and Cultural Heritage studio listening to a taped recording. (Photo by Angela Cervetti)

heritage, the Smithsonian Institution and the Library of Congress are acutely aware that, despite its newness, much of America's recorded sound heritage stands on the brink of complete decay.

the Smithsonian, will recover and preserve nearly 8,000 recordings. Simultaneously, the project team will develop and disseminate information on practical preservation methods to other sound archives.



Woody Guthrie's "This Land is Your Land" album, which is in the Smithsonian Center for Folklife and Cultural Heritage's archives, is one of the recordings to be preserved.

## Choosing a starting point

"Ensuring future generations' access to our sound heritage," Proschan says, "is impeded by the sheer volume of the work to be done, as well as the condition of the recordings." First, the project team had to establish a set of criteria to determine which key recordings should be selected for recovery and conservation. Those criteria included a recording's uniqueness, historical importance and popularity.

Once a selection of recordings has been made and work begins, "Save Our Sounds" experts will copy the materials to more modern, durable media. Sound engineers will target, for example, the audiotape holding the first recorded version of "We Shall Overcome," which later became a worldwide freedom anthem. The engineers will then make an analog safety copy that will be archived and cataloged.

The recording also will be saved as a digital wave file. It is important to copy the original recording on the best preservation media available, Kurin says, so that it will still be available when the technology for audio recovery becomes even more advanced.

CD-ROM copies stored in the Folklife Center's Ralph Rinzler Folklife Archives and Collections will be used for research purposes. The public also will have access to these invaluable historical recordings on a compact disc to be released by Smithsonian Folkways Recordings.

Similarly, the Library of Congress' popular "American Memory" Web site and a planned site, "I Hear America Singing," will feature a diverse selection of "Save Our Sounds" recordings.

## The written legacy

Working with archaic, if not obsolete, recording media is only half of the project. Nearly 2 million pages of written documentation, in addition to 1.25 million

photographs, are held in the collections of the folklife centers at both the Smithsonian and the Library of Congress.

However, much like their complementary recordings, these documents are rapidly decaying. Nearly 3,000 photos are yellowing toward oblivion, while tens of thousands of pages of maps, notes and diagrams have curled, crumbled and flaked.

It is ever more important, Proschan says, to preserve both sound recordings and their accompanying documentation while the original researchers and collectors are still alive to assist in the organization and descriptive cataloging of the materials.

"At Folklife," Proschan says, "Archivist Jeff Place and I can read Folklife Center founder and former Assistant Secretary Ralph Rinzler's notes from his first meetings with musicians Doc Watson and Dewey Balfa. But in the future, it will be harder to find someone who worked with Ralph and can decipher his handwriting."

## A legacy of sound

While "Save Our Sounds" preserves a critically important resource for researchers, it simultaneously affords Americans access to the voices of the past. It also enables historical voices to be actually heard—rather than just read or talked about.

"It's critical that we provide access to America's musical and cultural history and tradition for future generations, to celebrate the rich, exciting heritage of those who came before us," says musician Bonnie Raitt, who serves on the Leadership Committee along with other musicians, including Philip Glass, Dave Grisman, Yo-Yo Ma and Carlos Santana, among others.

Major support for "Save Our Sounds" comes from Save America's Treasures, a public-private partnership of the National Park Service and the National Trust for Historic Preservation.

# Caring for American Indian objects is both a challenge and a privilege

By Jo Ann Webb  
Smithsonian Office of Public Affairs

They are more than priceless objects of beauty. They are spiritual legacies from the past, offerings to a generation yet unborn. Of the more than 800,000 Native American objects in the care of the Smithsonian's National Museum of the American Indian, not one "belongs" to the museum.

"We are stewards of these objects, not the owners," says Jim Pepper Henry, repatriation program manager at the museum's Cultural Resources Center in Suitland, Md.

"We look at the management of our collections as a partnership," he adds. "We work closely with tribal representatives for the long-term care of the collections—how to preserve, store, clean and exhibit the objects. We try to be as respectful as possible of tribal ways, yet stay within our collections management guidelines."

## Special care

Caring for American Indian objects poses a different set of concerns, especially in light of the fact that Native American objects are considered spiritual objects. Conventional museum practices for the storage, treatment and handling of these objects, therefore, are not always appropriate.

"One of the goals of the National Museum of the American Indian is to establish a balance between institutional practices for the care of culturally sensitive collections and the concerns of the Native communities that are affiliated with these objects," Stephanie Maksey-Kelley, repatriation program specialist, says.

"The value of objects in an ethnographic collection depends more on understanding their place in the culture that created and used them than on simply maintaining them in association with similar items in what that culture might consider to be a 'sterile' environment," she adds.

The museum's mission statement mandates active acknowledgement that the museum's whole reason for being, she continues, is custodianship of one of the largest collection of Native American objects in the world, and that Native Americans are in a much better position to know their identity, role and purpose than museum curators.

"Our collections care practices have been the object of an evolving policy meant to balance the needs of both the tribe and the museum," she says. But that balancing act has not always been easy.

**During a Tlingit headdress repatriation ceremony at the Smithsonian's National Museum of the American Indian, members of the Tlingit of Angoon, Alaska, receive objects of cultural patrimony through the museum's Repatriation Program. (Photo by Katherine Fogden)**

## Tribal consultations

Certain objects have ceremonial significance, and American Indians have certain rules for caring for them, Pepper Henry says. The museum has established a program that brings in tribal groups to review the collections and then meet with the staff to discuss the objects and their care. It is through these consultations that staff learn about the objects, their tribal significance and "proper" care.

When certain tribal requests are made, the museum makes sure that they are within reason and that there are resources and staff available to accommodate those requests. If not, tribal representatives are asked for alternatives. In many instances, the tribal representatives perform their own ceremonial rituals, "and we encourage it," Pepper Henry says.

Some tribal groups request that their sacred items be labeled to denote their true identity and significance, and that others be stored in more concealed areas to avoid being seen inadvertently by those who are not prepared to encounter them.

Other groups request that food offerings be placed with certain objects or that other objects be physically oriented toward the tribe's sacred mountain. Some tribes want their objects smudged with smoke, handled periodically or moved away from certain other categories of objects.

There are requests that only women handle certain objects. In other instances, the tribal representatives point out that particular objects are part of a men's society and, in some instances, should not be handled by women. There are other objects that men of a certain age or race should not handle and some objects that should be prayed over a certain number of times each day.

"We consider the information that these tribal representatives give us, and we work with them to develop tribally specific collections management strategies," Pepper Henry says. "We don't promise the tribal community anything that we can't deliver." For example, he adds, "we don't and wouldn't discriminate against our staff in order to carry out special requests. There are federal regulations that prohibit that. We do, however, make the tribe's wishes known and let employees, both Native and non-Native who work with the collections, decide whether or not they want to abide by those wishes."

These tribal requests, Maksey-Kelley says, "are not based on bigotry, discrimination or prejudicial attitudes, but on a cultural belief system."

## Ceremonial spaces

The Cultural Resources Center plays a critical role in the traditional care of the collections. There are indoor and outdoor spaces for tribal representatives to come, handle the objects and perform traditional care practices.

The inside space has a blue stone fire pit for "smudging" ceremonies through which tribal members purify themselves with smoke before handling the objects. The center also has a space outside where tribal representatives can take objects, use them ceremonially and bring them back inside the building for storage.

"We are one of the few facilities in the world that allows objects to be taken out of the museum for ceremonial purposes," Pepper Henry adds.

## A new twist

While collaborating with tribal communities on the traditional care of certain objects in the collections, the museum must educate members of those communities on the use of pesticides in the conservation of objects during their museum life. Over the course of the last 100 years, approximately 150 types of pesticides have been used in the museum field to conserve objects, Pepper Henry says.

If some of these objects are repatriated to their tribal communities, he adds, the objects could cause a health risk to the tribes. "Before repatriation legislation, the museum community never seriously considered the possibility that culturally sensitive objects would once again return to ceremonial use or be worn by members of tribal communities. We certainly don't want to resist returning anything to a tribe if it rightfully belongs to them," Pepper Henry says, "but at the same time, we want to make sure that the tribe understands and is educated about the ramifications of pesticides."

The Smithsonian, and particularly the National Museum of the American Indian, are proactive about testing for the presence of certain pesticides before returning objects to tribal communities. When harmful pesticides are detected, the museum provides tribal communities with handling guidelines. In addition, the museum is looking at organizing workshops in tribal communities around the country that deal with this issue.



trolleys were attached to the bottom of the beams, and cables were fastened to the top so that the frame could gradually be slid into a horizontal position. "It was pretty nerve-wracking to watch," she says.

Once it was horizontal, the flag was photographed to document its condition at that time. Superficial dust and debris were removed so they wouldn't be ground into the flag's fibers during the rolling and crating processes. The flag was then taken to a newly constructed conservation lab on the same floor.

### Specially designed lab

The conservation lab features a 50-foot glass wall, which allows visitors to view the flag and learn about conservation. In May 1999, the lab was opened to the public and has been visited by more than 5 million people.

The first conservation task, which was completed in May 2000, was to remove the estimated 1.7 million stitches that attached the linen backing to the flag. A staff numbering five or six on any given day, covering one to three square feet per day, tediously removed the stitches, while lying on their stomachs on a gantry above the horizontal flag. Most of the stitches, originally dyed to match the flag, had faded and obscured the brighter colors in the flag.

The linen backing, which could be seen through the flag's open-weave fabric, also altered the flag's appearance. After the flag



Conservators lie on their stomachs on a moveable gantry above the Star-Spangled Banner to examine and vacuum the flag, which was spread out on a platform in Flag Hall at the Smithsonian's National Museum of American History. (Photo by Jeff Tinsley)

was turned over, the backing was removed, and the flag's true colors were revealed.

### An initial assessment

Without the linen backing, Thomassen-Krauss says, the extent of damage to the flag could be seen. Large areas missing from the white stripes had been camouflaged by the similarly colored linen backing.

In trying to restore the flag to a more rectangular shape, flag restorer Amelia Fowler had distorted and misaligned it to the extent that the warp yarns next to one of the stars were at a 45-degree angle. Most of the damage to the fibers was due to light, and the white areas were more damaged than the rest.

The flag also showed damage at two high-stress points: the hoist edge and the

opposite edge, the fly edge. When flown, the fly edge can move at a speed of up to 700 miles an hour, and the constant snapping of the flag had damaged it. In addition, the project team found that there were different levels of soiling at different ends of the flag because only the top 8 feet had been exposed during its display in the Arts and Industries Building.

"We are now at the end of a two-stage program to assess the extent of deterioration and to analyze the soils to decide the most effective methods for removal," Thomassen-Krauss says. The flag will be cleaned in sections, and the goal is to remove harmful debris without leaving residues.

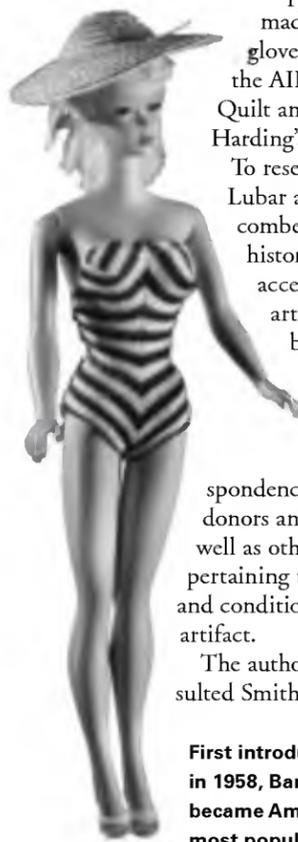
This fall, the team, in consultation with a panel of Smithsonian and other experts,

expects to make a decision on the best cleaning techniques. Significant portions of the conservation treatment will be completed by fall 2002.

Conservation treatment is just one aspect of the Star-Spangled Banner Preservation Project, which also includes research, education, outreach, exhibitions and an endowment for the flag's future care. A new enclosure for the flag also is part of the preservation project. To learn more, visit the Star-Spangled Banner Web site at [www.americanhistory.si.edu/ssb](http://www.americanhistory.si.edu/ssb).

The Star-Spangled Banner Preservation Project is made possible by major support from Polo Ralph Lauren, with generous support from the Pew Charitable Trusts, the U.S. Congress and the John S. and James L. Knight Foundation.

*Legacies* also includes information on the first pound of DDT manufactured in the United States, the first commercially successful zipper, a World War II soldier's scrapbook, a 1958 Barbie doll, Albert Einstein's pipe, Muhammad Ali's boxing gloves, a panel from the AIDS Memorial Quilt and Warren G. Harding's silk pajamas.



To research *Legacies*, Lubar and Kendrick combed through the history museum's accession files. Each artifact collected by the museum is assigned such a file, which contains correspondence between donors and curators, as well as other documents pertaining to the history and condition of the artifact.

The authors also consulted Smithsonian annual

**First introduced by Mattel in 1958, Barbie soon became American girls' most popular playmate.**

reports dating to the 19th century, looking for references to objects that museum curators of the time considered their most important accessions.

"We wanted to find interesting objects that reflected the museum's history and, at the same time, had really good stories," Lubar says.

One of Kendrick's favorite *Legacies* stories is that of Mary Edwards Walker, the only woman awarded the Congressional Medal of Honor. One of America's first women physicians, Walker was a Union Army contract surgeon during the Civil War and spent time in a Confederate prison.

Awarded the Medal of Honor in 1866 by President Andrew Johnson, Walker later became a lecturer for women's rights. An advertising card for Walker's lectures is one of the artifacts shown in *Legacies*. But the card and other Walker artifacts did not come to the museum until the 1970s.

"The Smithsonian didn't collect anything about Mary Walker while she was alive," Kendrick says. In 1917, Walker also lost her Medal of Honor. The award was revoked when Congress revised standards for the medal to require combat with an enemy.

Walker's story re-emerged decades later, at the height of the women's liberation movement. In 1974, her grandniece donated several Walker mementos to the Museum of American History. She also persuaded Smithsonian curators to support

an effort, ultimately successful, to restore the Medal of Honor to Walker.

To Kendrick, Walker's return from obscurity illustrates a central point of *Legacies*. "History has a history," she says. "As perspectives change, old stories are rediscovered and interpreted in new ways."

Which objects are considered worth saving and which stories are considered worth telling depend on the values and interests of the present.

In chronicling the ongoing conversation between museum curators and the American public about what's worth saving from the past, *Legacies*

reminds us "that the vast majority of artifacts in the Museum of American History are not here by accident." They are here because someone at some time passionately believed they were worth saving. And by considering what's been thought worth saving, we come to understand our history better.

For ordering information on the book, visit [smithsonianlegacies.si.edu](http://smithsonianlegacies.si.edu). The book also can be ordered from Smithsonian Institution Press, P.O. Box 960, Herndon, Va. 20172-0960, or call 1 (800) 782-4612.

**Steven Lubar and Kathleen Kendrick with a proof copy of their book, *Legacies: Collecting America's History at the Smithsonian*. (Photo by Angela Cervetti)**



## Research Highlights

**Documenting the tragedy.** Historians and curators at the Smithsonian's National Museum of American History, Behring Center are considering how best to collect and preserve some tangible aspects of the terrorist attacks of Sept. 11. Objects, photographs and archival materials will be preserved permanently and will help future historians and visitors comprehend the horrific events. On Oct. 4, the museum partnered with the Museum of the City of New York to convene a meeting of more than 70 professionals from a diverse group of institutions. The meeting, held in New York City, provided historians, curators, archivists and artists with a forum to explore the role of cultural organizations in a time of national and global crisis and to formulate an appropriate response that achieves a balance between the urgency to document the moment and the need to provide long-term perspective.

**Science commission meets.** The Smithsonian Science Commission, chaired by Jeremy Sabloff, director of the University of Pennsylvania Museum of Archaeology and Anthropology, met for the first time Sept. 6 in an all-day session at the Smithsonian. The meeting was largely procedural in content. Subcommittees were formed to discuss and make recommendations to the group on each of the charges made to the commission. Small groups of commissioners also plan to conduct site visits and hold town hall meetings at each of the Smithsonian's research centers. Sabloff proposed bimonthly meetings, with two more to be held before the end of the year. The commission was appointed in May by the Smithsonian Board of Regents to advise on the Institution's new strategic direction for science. A final report is not anticipated before the May 2002 Regents meeting.

**Water detection.** A team of astronomers has concluded that there are extra-solar planetary systems, other than our own solar system, that contain water—an essential ingredient for known forms of life. It is the first time that water vapor has been detected in objects circling a star other than our sun. The discovery, reported in an article published in the July 12 issue of the journal *Nature*, is the result of observations with the Submillimeter Wave Astronomy Satellite, or SWAS, a compact radio observatory that the National Aeronautics and Space Administration launched into space in December 1998. Over the last two years, SWAS has detected water vapor from a wide variety of astronomical sources, according to Gary Melnick, a senior astronomer at the Smithsonian Astrophysical Observatory in Cambridge, Mass., and principal investigator on the SWAS mission.

**A World War II mystery.** The fate of three of America's B-29s that landed at a Soviet air base during World War II has been shrouded in mystery for many decades. For the three B-29s, landing at these air bases led to the confiscation of the aircraft and a

long internment for the American crewmen. Thanks to the research of Von Hardesty, a curator at the Smithsonian's National Air and Space Museum, and a team of Russian historians, museum experts and archivists, the mystery has been solved.



The B-29 strategic bomber, such as the one shown here, was used during World War II.

The research team has proven that the chance internment of the three B-29s offered the Soviets a way to make a sudden technological leap forward with a rush program of copying the B-29—one of the most extraordinary efforts of reverse engineering in aviation history. It took just two years for the Soviets to debut their new Tu-4 bomber at Tushino in the summer of 1947. The work of the research team is featured in the March 2001 issue of *Air and Space/Smithsonian* magazine.

**African throwing knives.** In the 1880s, approximately 1,000 iron weapons were collected in the Congo by Herbert Ward, an Englishman who amassed a large num-



This African throwing knife was recently donated to the Smithsonian.

ber of Congo objects while working in the area. Ward requested that, upon his death, his collection be donated to the Smithsonian, where it is now part of the anthropology collections in the National Museum of Natural History. The knives are the focus of a research project under way by Mary Jo Arnoldi, a curator in the museum, and S. Terry Childs, an archaeologist at the U.S. National Park Service. The assumed relationship between knife shapes and the ethnic identities of their producers has been almost the sole focus of scholarly research over the years. The research of Arnoldi and Childs looks at the validity of this assumed relationship.

**Wolf recovery program.** The Smithsonian's National Zoological Park recently

became a partner in the Mexican Wolf Recovery program with the arrival of 3-year-old sibling wolves from the Wild Canid Survival and Research Center in Eureka, Mo. The Mexican wolf population declined drastically before anyone really

studied them in the wild, according to National Zoo Biologist Linda Moore, who, along with keepers, cares for the wolves. The recovery program is a cooperative venture headed by the U.S. Fish and Wildlife Service and, in addition to the National Zoo and other zoological parks, involves the Arizona Department of Game and Fish, the New Mexico Department of Game and Fish, the U.S. Department of Agriculture's Wildlife Services, the USDA Forest Service and federal Mexican wildlife agencies.

**Mongolian reindeer herders.** William Fitzhugh, a curator at the Smithsonian's National Museum of Natural History, has been conducting research on the Dukha, a unique group of southern reindeer herders who live in northern outer Mongolia. The Dukha's way of life is threatened by governmental policies prohibiting their free movement with the reindeer herds across what is now a closed Russian border. Fitzhugh plans to return to the region next year to conduct archaeological investigations on the sacred "deer stone" monuments that are believed to be more than 3,000 years old and may have stimulated the development of Scythian art.

## Books & Recordings

**Looking at Life Magazine**, edited by Erika Doss (Smithsonian Institution Press, 2001, \$29.95). This book focuses on how the magazine, in its editorial and pictorial style, played a leading role in shaping American national identity, from the Great Depression through the Vietnam War.

**Captivating Life: A Naturalist in the Age of Genetics**, by John C. Avise (Smithsonian Institution Press, 2001, \$24.95). The author, a modern-day naturalist and evolutionary geneticist, recounts his scientific adventures with many animals in the wild and reflects on the artistry of scientific discovery and the allure of the natural world.

**Great Apes and Humans: The Ethics of Co-existence**, edited by Benjamin B. Beck, Tara S. Stoinski, et al. (Smithsonian

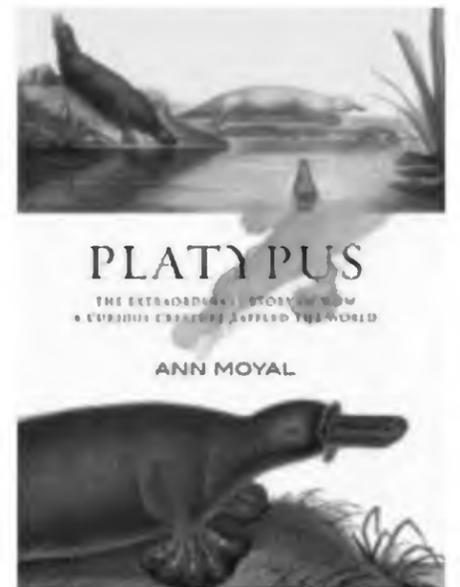
Institution Press, 2001, \$34.95). A variety of field biologists, academic scientists, zoo professionals, psychologists, sociologists, ethicists and legal scholars present a spectrum of viewpoints on human responsibilities toward great apes.

**Trees**, by Roland Ennos (Smithsonian Institution Press, 2001, \$14.95). In this richly illustrated overview, the author examines tree history, explains their mechanics and assesses their future.

**North American Tree Squirrels**, by Michael A. Steele and John L. Koprowski (Smithsonian Institution Press, 2001, \$24.95). Written with clarity and wit by two top scientists, the book illuminates the everyday lives of gray and fox squirrels, the two most dominant types of tree squirrels of the eastern United States.

**Dragonflies of the World**, by Jill Silsby (Smithsonian Institution Press, 2001, \$39.95). More than 5,000 species of dragonflies inhabit six of the seven continents. In this richly illustrated guide, the author provides a comprehensive worldwide guide to the order Odonata, describing the unique attributes of dragonflies in general and the distinctive features of individual families and subfamilies.

**Platypus: The Extraordinary Story of How a Curious Creature Baffled the World**, by Ann Moyal (Smithsonian Institution Press, 2001, \$21.95). Using the evolution of species classification as a framework, the author recounts how the leading zoologists and comparative anatomists of Britain and Europe fiercely debated for almost 90



The platypus looked like it was a hoax to the 19th-century scientific community.

years exactly what kind of animal the platypus was and how it reproduced.

**Havana, Cuba, ca. 1957: Afro-Cuban Sacred Music From the Countryside** (Smithsonian Folkways Recordings, 2001, \$15 CD). These ritual rhythms provide a direct link to the music of 19th-century colonial Cuba and preserve extremely rare "bembe lukumi" ritual drumming used by practitioners of Santería to summon the gods.

*'Recordings,' continued on Page 8*

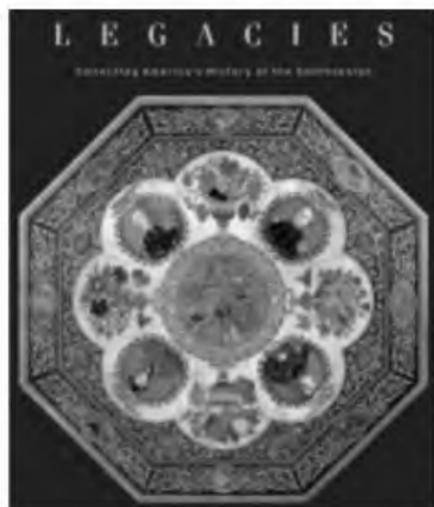
## Legacies: Collecting America's History at the Smithsonian

By Steven Lubar and Kathleen M. Kendrick  
(Published by Smithsonian Institution Press, 2001, \$39.95)

Deciding which things to keep and which items to throw away has been a dilemma for most of us. What makes some things keepsakes and others not?

A new book, *Legacies: Collecting America's History at the Smithsonian*, tells the stories behind some of the objects that people decided to keep and things that are now in the Smithsonian's National Museum of American History, Behring Center (see story, Page 2).

The vast majority of artifacts in the museum, according to authors Steven Lubar, chair of the museum's Division of History of Technology, and Museum of American History Project Historian Kathleen Kendrick, are not there by accident.



*Legacies: Collecting America's History at the Smithsonian* tells the stories behind some of the objects in the Smithsonian's National Museum of American History.

"They are here because someone at some time passionately believed they were worth saving," Lubar and Kendrick write in the introduction to the book.

"As touchstones of history and identity, the things people preserve help them know who they are," they write. "Often, however, people intend things to do more than that. They also want [those things] to help others remember who they were. To do that, they transform objects into legacies." One way they do that is by giving those objects to a museum.

In this beautifully illustrated book, Lubar and Kendrick tell the stories behind more than 250 treasures found in the Museum of American History. It is not so much a book about the history of the objects as much as it is about the stories of why the objects were collected and why they seemed worth saving.

*Legacies*, published by Smithsonian Institution Press, is organized around four concepts of what a national museum of history should be: "A Treasure House," "A Shrine to the Famous," "A Palace of Progress" and "A Mirror of America."

Thus, the museum collects cherished or precious objects, houses celebrity memorabilia, documents technological advances and reflects visitors' own lives. Taking examples from each of these components of the museum's mission, Lubar and Kendrick provide historical context for the work of the Smithsonian—from its evolving treatment of Native American artifacts

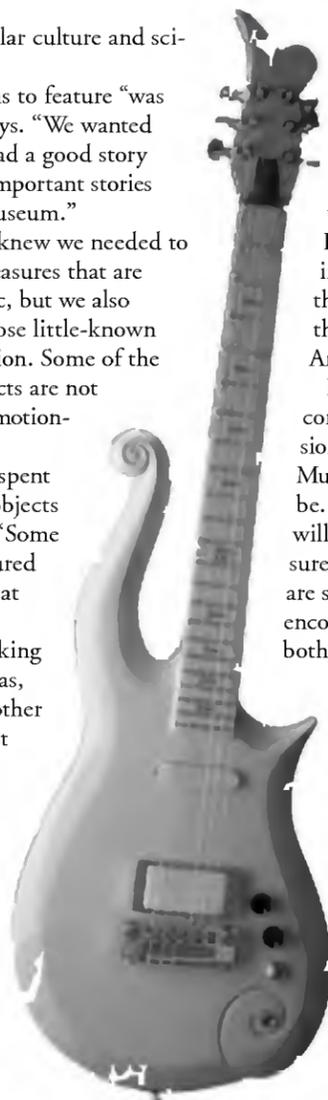
to its handling of popular culture and scientific discoveries.

Deciding which items to feature "was the fun part," Lubar says. "We wanted objects that not only had a good story but also reflected the important stories in the history of the museum."

Kendrick adds: "We knew we needed to include well-known treasures that are popular with the public, but we also wanted to bring out those little-known treasures in our collection. Some of the stories behind the objects are not only fascinating, but emotionally moving."

Lubar and Kendrick spent two years researching objects and writing the book. "Some of the artifacts we featured were found by looking at the museum's annual reports, some from looking through collections areas, many by talking with other staff and some were just longtime favorites," Lubar says.

Lubar and Kendrick also waded through the museum's accession files, which proved to be chocked full of information. The files contain information on the objects themselves, correspondence



from the donors and memorandums from the curators describing what made the objects important and worth saving.

"The stories in the accession files were vital to the stories we wanted to tell in the book," Kendrick says. "We tried to include a broad representation of the museum collections, as well as the different subjects and areas of American history."

Lubar hopes that *Legacies* will be a contribution to the ongoing discussion about what the National Museum of American History should be. "We would hope that the book will help to widen the idea of 'treasure' beyond the usual favorites that are so widely known and that it will encourage discussion about collecting, both here and at other museums."

—Jo Ann Webb

This fall, Donor Level and Above Contributing Members will receive the book *Legacies: Collecting America's History at the Smithsonian as a benefit of membership*. For information on ordering, see "Recordings," below.

The guitar of the artist formerly known as Prince is in the collections of the National Museum of American History.

'Recordings,' continued from Page 7

**Havana, Cuba, ca. 1957: Rhythms and Songs for the Orishas** (Smithsonian Folkways Recordings, 2001, \$15 CD). This compact disc of ritual rhythms and songs features the bata drums, used by practitioners of Santería to salute and summon the gods, or orishas.

**Ella Jenkins: Little Johnny Brown** (Smithsonian Folkways Recordings, 2001, \$15 CD). This compact disc represents two of the reasons for Jenkins' popularity

with students and teachers alike—her repertoire of traditional and original songs that speak to many cultural backgrounds and her ability to engage children in musical play.

**Pete Seeger: Song and Play Time** (Smithsonian Folkways Recordings, 2001, \$15 CD). These songs for children, originally released in 1960, present Seeger at his best.

Books published by Smithsonian Institution Press can be ordered from P.O. Box

960, Herndon, Va. 20172-0960. To order by phone or for more information, call 1 (800) 782-4612. There is a \$3.50 postage and handling fee for the first book ordered and \$1 for each additional book.

Smithsonian Folkways Recordings can be ordered from Smithsonian Folkways Mail Order, 750 Ninth St. N.W., Suite 4100, Washington, D.C. 20560-0953. To order by phone or for more information, call (202) 275-1143 or 1 (800) 410-9815. There is a \$5.50 fee for shipping and handling of the first 15 recordings ordered; call for other shipping prices.

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