

# Research Reports

CULTURAL HISTORY

## Where cultural and social forces converged, the music emerged

By Colleen Hershberger  
Smithsonian Office of Public Affairs

**W**here class, society and race have divided Americans, music has united us. So it was in the South in the early part of the 20th century.

White folks and black folks, high-rollers and paupers, downtown dwellers, country farmers and field hands set aside their differences to play and enjoy music together. The sounds of blues, country and gospel eventually converged at the urban crossroads of Memphis, being reborn, first as rock 'n' roll and, later, as soul music.

This blending of cultures and the results are presented in a Smithsonian exhibition titled "Rock 'n' Soul: Social Crossroads," curated by historians Charlie McGovern and Pete Daniel of the Smithsonian's National Museum of American History, Behring Center. The exhibition, scheduled to run indefinitely, is on view at the Memphis Rock 'n' Soul Museum, located in the Gibson Guitar Factory in Memphis, Tenn.

The show examines the people and social forces that created the music—from the blues, country and gospel of the 1930s to the emergence of rock 'n' roll in the 1950s to the soul tunes of the 1960s and 1970s. Conversely, the exhibition considers how music affected social and cultural movements such as urban migration, youth culture and civil rights.

"Many of the most important artists and developments of rock 'n' roll and soul music emerged from Memphis," McGovern says. Elvis Presley, Carl Perkins, B.B. King, Carla Thomas, Rufus Thomas, Al Green, Ann Peebles, Otis Redding and others all came from Memphis. "But what happened in Memphis happened in a lot of places. Wherever you look, rock 'n' roll came out of mixed, or racially commingled, neighborhoods. Many people involved with the music were transracial; that is, they could operate in different worlds."

Daniel, an expert on the rural South during the Depression era, adds that it was common for white and black people to

work together as field hands. When taking a rest, "someone might start playing an instrument, and other folks would join in," he says. "They picked up each others' country and blues licks."

"And everyone, black or white," Daniel continues, "grew up with church music. They may have sung the hymns a little bit differently, but everyone could pick up on 'Old Rugged Cross.'"

The researchers spent years interviewing and recording more than 70 individuals, including singers, producers, engineers, record shop owners, disc jockeys, factory workers, sharecroppers and others.

"We asked them about their lives, not just about the music," explains John Meehan, audio-visual production specialist for Smithsonian Productions, who accompanied Daniel and McGovern on these trips. "We asked about their childhood, music teachers and their religious experiences."

Excerpts from the interviews can be seen in the three videos in the exhibition. In one interview, rock 'n' roll legend Carl Perkins recalled growing up as a sharecropper, "working alongside hundreds of black people." The same man who taught him to "crop" also taught him his first guitar chords.

It was critical to interview not only the artists and musicians but the "middle people" as well, McGovern says. "Without the managers, agents, bookers and jukebox dealers, none of this would have been possible," he says of the development of rock 'n' roll and soul music.

McGovern tells the story of George Sammons, a small-businessman who sold jukeboxes. "Those boxes represented a considerable amount of capital. As a distributor, Sammons co-signed notes with African American owners of honky-tonks, cafés, filling stations and juke joints," he says. "Sammons was a white man who extended credit to African Americans, just as someone had extended credit to him."

One of Sammons' 1930s red juke boxes is in the exhibition. Using the interactive audio tour, visitors can play songs virtually

on the five other jukeboxes scattered throughout the exhibition and listen to hundreds of songs from the 1930s to the 1970s.

**The fans**

"The kids and the fans are a huge part of this story," McGovern says. "They're the ones who went to the big rock 'n' roll shows in the mid-1950s. These were often the first integrated public events."

People who witnessed these events, he says, have a hard time seeing themselves as a part of the history. But the researcher, McGovern adds, gleans a critical perspective by interviewing those who were kids when rock 'n' roll and soul music were popular.

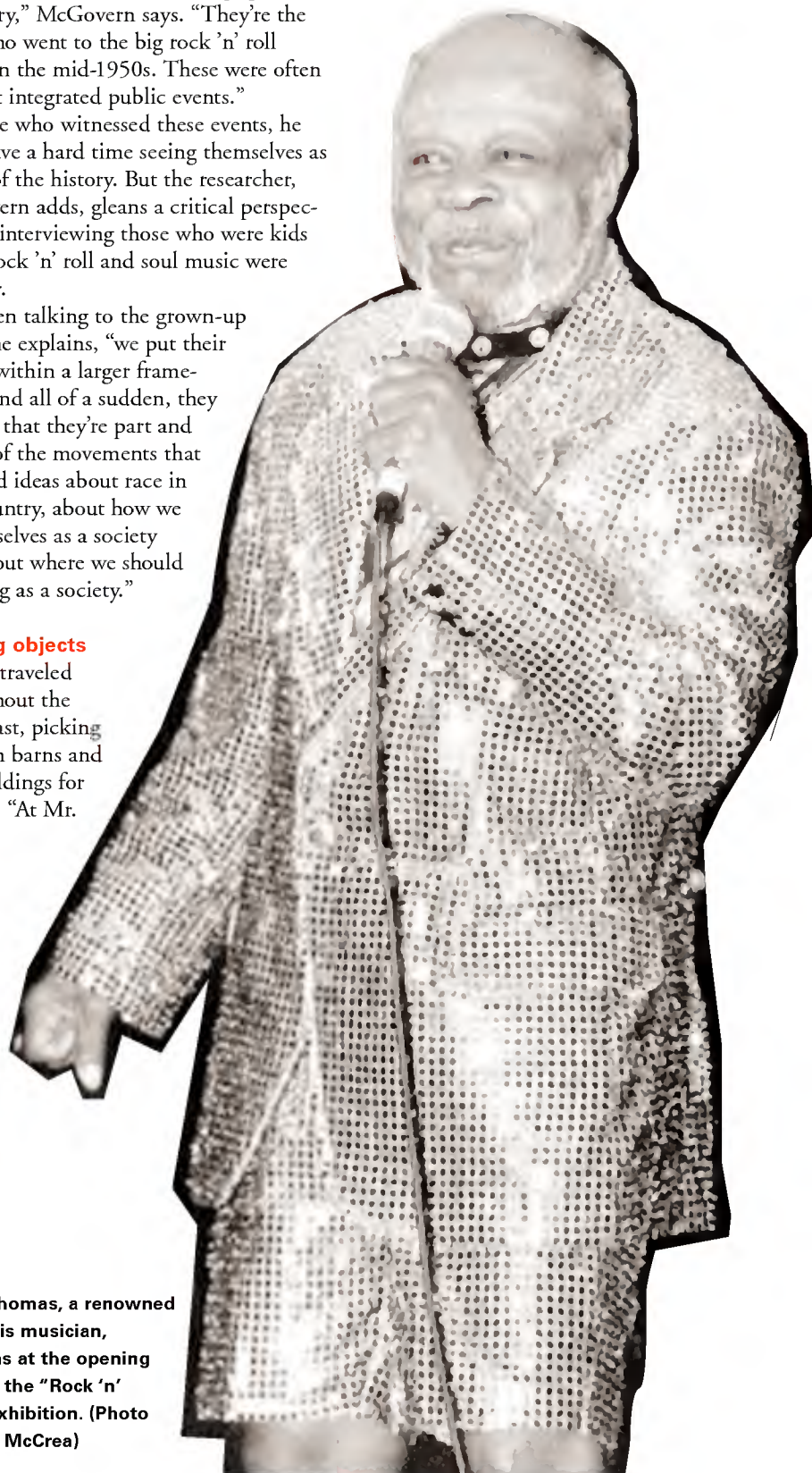
"When talking to the grown-up fans," he explains, "we put their stories within a larger framework, and all of a sudden, they can see that they're part and parcel of the movements that changed ideas about race in this country, about how we see ourselves as a society and about where we should be going as a society."

**Finding objects**

Daniel traveled throughout the Southeast, picking through barns and old buildings for objects. "At Mr.

Brooks' place," he says of one source, "we found two screen doors labeled 'White' and 'Colored.'" Strategically placed in the exhibition, the doors help convey the real-

*'Rock 'n' Soul,' continued on Page 6*



Rufus Thomas, a renowned Memphis musician, performs at the opening gala for the "Rock 'n' Soul" exhibition. (Photo by Terry McCrea)



**African cultures** ■ Studio art was the first love of Mary Jo Arnoldi, curator of African ethnology and art in the Anthropology Department of the Smithsonian's National Museum of Natural History. After receiving her bachelor of fine arts degree from Bowling Green State University in Ohio, however, she realized she was "much better at thinking and writing about art than actually creating it."

Following college, she was accepted into a graduate program in Northern European Renaissance art history, but then decided to take a break to work as a Peace Corps volunteer in Senegal. That decision influenced the course of the rest of her life and ultimately led to the recent redesign of the Africa Hall at the Museum of Natural History.

On her return to the United States, Arnoldi decided to pursue a doctorate in African art history with a minor in anthropology and spent two years in Mali researching her dissertation. Before coming to the Smithsonian in 1985, she served on the faculty of the University of Missouri in Kansas City and was a curator at the Nelson Atkins Museum of Art in Kansas City.

Arnoldi tries to spend at least four to six weeks each year in Africa. One of her major research projects, which she began in Mali in 1978 and expanded throughout the next



15 years, was an in-depth study of puppet masquerade theater. She is now studying urban arts in West Africa and is conducting a project on the history of Malian national arts festivals, as well as a study of monuments in Bamako.

Although she has worked a great deal in both Senegal and Gambia, Arnoldi considers Mali her second home. She has no children of her own, but has "a lot of children in Mali who belong to friends of mine," she laughs. "I started working in

Mali in 1978 and have grown older with the women in that same community. Over the last 20 years, our conversations have changed as these friends have become mothers and then grandmothers," she says.

Arnoldi has a personal and scholarly interest in the way conversation and dialogue can convey information on a very personal level, she says, and in a way that will, in turn, stimulate more conversation and dialogue.

As a result, putting a human face on the story of Africa and promoting dialogue are key elements in the recent redesign of the Africa Hall. The dynamic exhibition, "African Voices," which opened in December 1999, is vastly different from the exhibition on Africa that preceded it. In "African Voices," African culture and society are represented by individual stories, and some of the individuals featured are people whom Arnoldi has known for decades; others she met in the course of developing this exhibition.

"The Museum of Natural History has a very well-informed public," Arnoldi says, "so the museum's exhibit team and our extended team of advisers wanted this to be a gallery where people would have conversations about what they were seeing. We wanted it to be a learning experience and a destination for local and regional audiences. "We also wanted it to be a place that would evoke memories for newly arrived African families."

Arnoldi is very aware of the power that her knowledge of West African culture and her experience and study of performance art have given to this vibrant exhibition. She is adamant in emphasizing the connection between research and exhibitions and emphasizes that "African Voices" is just the beginning of a larger project to which the museum has committed itself—the study and exhibition of African cultures.



With a Global Positioning receiver jutting out of his backpack, Andrew Johnston walks on Nevado Mismi in Peru. (Photo courtesy of National Geographic)

### AEROSPACE TECHNOLOGY

## Satellite imagery provides scientists with a close-up view of the Earth

By Topper Sherwood  
Special to Research Reports

Understanding how the Earth is changing through time is an important goal for scientists around the world. Geographer Andrew Johnston, who works in the Center for Earth and Planetary Studies at the Smithsonian's National Air and Space Museum, uses aerospace technologies such as satellite imagery to better understand the Earth.

Finding new ways to chart the environmental effects of human activity on the Earth, including industrial development, deforestation and urban growth, is "probably the largest single issue driving interest in remote-sensing technology right now," Johnston says.

### Utilizing the technology

Most of his work is done at the museum. Frequently, however, his expertise takes him to spots on the Earth that are about as far from civilization as one can get. Last summer, for example, 32-year-old Johnston served as chief scientist on a National Geographic Society expedition to Peru that precisely confirmed the ultimate source of the Amazon as a stream beginning on Nevado Mismi, an 18,363-foot-high mountain in southern Peru.

Johnston used advanced navigation technology known as the Global Positioning System to gather data on the stream so it could be mapped. The system employs a constellation of satellites that communicate with hand-held receivers to identify, with great accuracy, specific points on the Earth.

"People have been writing and arguing about [the source of the Amazon] for years," Johnston says. "The main goal of the trip was to collect the data necessary to bring this discussion to conclusion, and we were able to do that. The source of the Amazon can be defined as the most distant

point in the river's drainage basin from which water runs year-round, or the furthest point from which water could possibly flow to the Atlantic. Nevado Mismi fits both of these definitions."

The Global Positioning System equipment used by Johnston on the expedition is considered accurate to within 1 to 5 meters. It's the first time such high-precision equipment is known to have been used in this remote area.

*'Satellite imaging,' continued on Page 5*

Smithsonian Institution

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# Paint-by-number: A phenomenon that made everyone a 'Rembrandt'

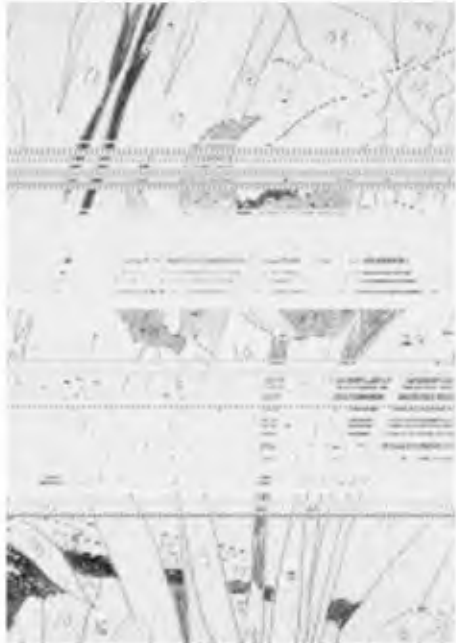
By Angela Cervetti  
Smithsonian Office of Public Affairs

The prow of the majestic sailing ship cuts through an angry sea that gives way in frothy peaks of White No. 1. High atop the rugged mast, a tiny Red No. 3 pennant flaps against a sky of Azure 4. "Before the Wind" and other paint-by-number works like it held an honored place on the living room walls of American homes in the 1950s. But was it art?

Larry Bird, curator of the exhibition "Paint by Number: Accounting for Taste in the 1950s," which opened at the Smithsonian's National Museum of American History on April 6 and will continue through Dec. 31, does not think so. "It is a compromise

between genuine creativity and the day-to-day pressures of raising a family and earning a living. The people doing it knew that it was not art, how could they not know?"

For \$2.50 per kit and hours of meticulous coloring within the lines, mailmen, housewives, accountants and even presidential cabinet members participated in an



Early paint sets, such as this one manufactured by Picture Craft in 1953, typically included a pair of paint brushes, oil paints in gelatin capsules and a rolled canvas.

artlike experience guaranteed to produce a perfect picture every time. But not everyone was happy to see its advent. "It became a sport among social critics to denounce it," explains Bird, also curator of the political history campaign collection at the museum. "Critics saw it as part of the increasing mechanization of culture, and those who engage in it as either poor souls who didn't know what

they were doing or, as one critic called them, 'morons.'"

## An idea is born

In 1950, Dan Robbins, a package designer at the Palmer Paint Co. in Detroit, approached its owner, Max Klein, with a concept: A paint-by-number kit containing a brush, a canvas of line art with numbers on it and paint to match up with the numbers. Klein turned Robbins' idea into a nationwide phenomenon.

A year later, in 1951, Palmer Paint began distributing paint-by-number kits to department stores such as Macy's. By 1954, the company had sold some 12 million kits.

## Surprising interest

Bird's interest in the paint-by-number phenomenon began in 1995, when he got a call from the museum's Archives Center. "Klein's daughter wanted to donate a couple of trunks full of company scrapbooks, trade materials and photographs her father left when he died in 1993," he recalls. As soon as he saw the material, he knew it would make a great exhibition.

But before going forward with exhibition plans, Bird had to present the idea to the museum's Exhibit and Program Committee. Initially, the committee was somewhat skeptical, he admits. "When you say 'paint-by-number,' you always get raised eyebrows," Bird says. "Personally, I enjoy looking at the finished paintings."

Part of Bird's proposal was a publicity idea to put a giant paint-by-number canvas outside the museum and then paint a few numbers a day. "It would be the only place where people could see the process taking place," Bird says.

But what painting should it be? "I asked the Smithsonian's Office of Policy and Analysis (then the Institutional Studies Office) to conduct a survey of our visitors to find out what their favorite picture was," he says.

The survey of visitors showed their favorite image was a landscape or seascape. "We chose a lighthouse scene with the surf crashing against the rocks," Bird says.

## Planning the exhibition

With the committee's approval, Bird immediately began work on the content of



This painting, "Before the Wind," is on view in the exhibition "Paint by Number."

the exhibition and the show's catalog. He decided to divide the show into three parts and an epilogue. "The first part, 'Every Man a Rembrandt,' talks specifically about paint-by-number as a Detroit product," Bird says.

The second section, "The New Leisure," looks at social class in the 1950s, when more Americans than ever before had free time, and social critics told them they were not spending it quite as they should.

The third section, "The Picture's Place," discusses the contri-

butions of paint-by-number pictures to the do-it-yourself aesthetic of "domestic art."

The show closes with the epilogue, "The Unfinished Work." Bird says: "It shows how the ideas associated with paint-by-number played out, but also how they were re-interpreted by artists like Andy Warhol and Paul Bridgewater."

## Gathering materials

To disseminate information about the show within the museum and to potential lenders, Bird designed and launched a Web site. He then quickly turned his attention to arranging loans of paintings. For that, he had to travel.

Over a period of six months and with a budget of \$3,500, Bird went to Toronto, Chicago, New York, Miami and Boston, where he met with collectors, photographed paintings and tentatively arranged for loans.

"I needed more than 200 figures for the catalog, so I borrowed an average of 30 paintings per collector," Bird says. "For the show, we chose about 40 pieces that were the most expressive."

In gathering the material, Bird hoped to find one item in particular: a paint-by-number portrait of President Eisenhower. At the Eisenhower Library in Abilene, Kansas, Curator Dennis Medina told Bird he had never seen such a painting but had something else that might interest him.

"It turns out that Eisenhower's appointment secretary, Thomas E. Stephens, decided to mount a White House

*'Paint,' continued on Page 6*



Dan Robbins is credited with devising the paint-by-number concept more than 50 years ago. (Photo by Jeff Carter)



# An age-old tradition becomes the action in an award-winning film

By Michael Lipske  
Special to Research Reports

**E**arl Nyholm knows that it is much easier to go to a sporting-goods shop and buy an aluminum or fiberglass canoe than to make one by hand. “But I learned to make canoes the old way, and I feel good about that,” he says.

By “the old way,” Nyholm means making a canoe by hand—from sheets of birch bark, lengths of pine root and other natural materials gathered from the northern forest. In “Earl’s Canoe,” an award-winning film from the Smithsonian’s Center for Folklife and Cultural Heritage, the Ojibwe Indian demonstrates the ancient craft of canoe making, creating a 14-foot boat, with the help of family and friends.

Although the film’s viewers may not feel prepared to construct their own canoes, they will have acquired a new benchmark for aquatic elegance after watching Nyholm and his 84-year-old mother paddle their graceful, gold-colored, home-made boat into a Great Lakes sunset.

Filmed in the summer of 1997 on Madeline Island, Wis., at the western end of Lake Superior, “Earl’s Canoe” is a project of Smithsonian Ethnomusicologist Thomas Vennum. “I’ve known Earl for a good 30 years,” Vennum says, “and I’d guess he’s probably made 30 or 40 canoes in his lifetime.” More than a master canoe maker, Nyholm also is a linguist, who teaches at Bemidji State University, in Minnesota, and the author of an Ojibwe dictionary.

Vennum, too, has varied work interests. Since coming to the Smithsonian in 1975,

he has made, he says, “eight or 10 ethnographic films” on subjects as diverse as drum making, Finnish American winter festivals, Paiute Indian tule-reed technology and the folk puppetry of Rajasthan, India.

With Mickey Hart, a drummer who played with the Grateful Dead, Vennum also has produced award-winning albums of American Indian music. But do not expect to hear music in “Earl’s Canoe.” Vennum insists: “I didn’t want any of this New Age Indian flute music in the background.”

“Quiet as the North Woods,” the film’s low-key soundtrack, offers the crunch of footsteps on fallen leaves, cries of flickers and other forest birds, tapping and scraping sounds from hand tools, and the splashing of waves on an island beach. These sounds provide the backdrop for Nyholm’s voice as he guides his helpers—and the film’s audience—through the hundreds of steps in birch-bark canoe making.

“Earl doesn’t talk an awful lot,” Vennum says. To produce enough narration for the film, Vennum interviewed Nyholm while the two watched 50-year-old, silent film footage of a bark canoe being made by Bob Pine, the Wisconsin Ojibwe Indian who taught canoe making to Nyholm.

“That generated enough of Earl’s conversation about the technology that we were able to pick and choose and cut it in as a voice-over,” Vennum says.

The canoe that Pine made in the early film and the one Nyholm made for the

newer film are displayed together in the Milwaukee Public Museum.

## A master at work

Age-old technology and tradition drive the action in “Earl’s Canoe.” The film starts with Nyholm searching for a suitable birch tree. “For every one good tree,” he says, “you’ve got to look at at least 100.” Carrying a walking staff, he rambles through the Madeline Island forest. The canoe maker runs his hands over the white-and-black skin of a promising tree and studies the shape of its trunk.

Shedding his jacket, he begins slicing through the tree’s bark with a knife. The first cut circles the trunk near the ground, and after Nyholm climbs a ladder, a similar circular incision is made 20 feet up the trunk. Nyholm next carves a long vertical cut in the bark down the length of the tree. With great care, he and a helper then pry free the birch bark in one large sheet. Although the bark does not replenish itself, the tree itself is unharmed.

Nyholm leaves a gift of some tobacco to thank the spirit that guards the tree. He then tucks fern leaves in with the bark to keep it moist, while rolling the sheet up like a carpet for transportation.

At lakeside, the bark is spread flat on a bed of sand. Contrary to most artistic conceptions of birch canoes, the white outer bark faces the inside of the boat. The tree’s yellow inner bark, placed face down on the sand, becomes the canoe’s exterior.

A temporary wooden form is positioned on top of the bark sheet; weighted down with rocks, the form is used to shape the bottom of the canoe. Stakes driven into the sand prop up the left and right sides of the bark sheet, forming the sides of the canoe. Extra sections of bark are stitched to the sides to increase the height of the gunwales.

In the film, Nyholm explains that, in the old days, canoe making was a family project and that, on this canoe, he is helped out by cousins who live in the area. “I suppose you could call it nepotism,” he says.

His mother assists in sewing together the pieces of birch bark. The thread used is jack pine root, dug up from trees along the beach and then soaked in lake water and scraped by hand. Pushing and pulling lengths of stiff pine root through tree bark is laborious sewing. “When you do this kind of work, your hands don’t get to be ladies’ hands anymore,” Earl’s mother says with a chuckle.

When the last hand-molded cedar canoe rib is in place and the wooden form for the hull has been removed and all the bark is sewn tight, Nyholm visits a black spruce swamp to collect nuggets of pitch. Back at the beach, he melts the pitch in a kettle over a wood fire. He adds finely ground charcoal to the bubbling pitch, to blacken it, and tosses in lumps of deer tallow for flexibility. Then the dark tarry mixture is spread as a waterproof sealant along the seams on the outside of the completed canoe.

## Time and honor

Two months passed during the making of the canoe, not the three weeks that an optimistic Vennum budgeted for shooting



In this image from “Earl’s Canoe,” Earl Nyholm, bottom, holds a sheet of birch bark as it is removed from a tree.



Earl Nyholm, left, splits the roots of a jack pine tree, which will be used as “thread” to sew together the components of the canoe. Helper Charlie Ashman, center, and Nyholm’s mother, Julia, watch the tedious process.

the film. The “old way” has scant sympathy for deadlines. On the other hand, Nyholm, his mother, and his cousins and friends have built one beautiful bark boat on the shore of Lake Superior.

As the sun sinks and the film nears its end, the canoe is carried to the water. Nyholm paddles in the stern. In a voice-over, he notes that Madeline Island once was the capital of the Ojibwe Nation. He says it pleases him that the bark to make the canoe was cut from a tree growing on the island. “It makes a link there, a spiritual link,” Nyholm says, as the canoe bobs on the surface of the lake. “We hope that those that lived here on the island years ago, at least spirit-wise, are here looking at this here canoe.”

Smithsonian Productions Audio-Visual Production Specialist John Paulson served as cinematographer for “Earl’s Canoe.” Smithsonian Productions soundman Mark Griswold played an important role in the film’s taped interviews, and Charlie Webber, audio-visual specialist at the Center for Folklife Programs and Cultural Heritage, served as film editor.



# Hands-on exhibit teaches kids about behind-the-scenes jobs in a real zoo

By Heather Friesen  
Smithsonian Office of Public Affairs

Imagine a room full of 5- to 10-year-old kids acting like zookeepers taking care of animals. They're playing. They're laughing. They're in constant motion.

That is the idea behind the interactive exhibit "How Do You Zoo?" at the Smithsonian's National Zoological Park, and kids seem to love all of it—at least, almost all of it.

"The only thing I didn't like was when I had to scoop the poop," says 7-year-old Ngalla Barry, cringing. Her 10-year-old cousin, Patricia Long, agreed that playing zoo keeper was fun, but she had doubts about becoming one later in life, because "then the poop is real!"

Even though the poop isn't real in the "How Do You Zoo?" interactive exhibit, the learning experience certainly is.

## Exhibit components

The exhibit consists of four learning areas: the Small Mammal House, the zoo keeper's office, the commissary and the animal hospital. Each is decorated in exact detail, from lifelike tropical trees in the mammal house to a fake splatter on the commissary floor.

In each section, children can participate in five to six activities based on the real duties of animal keepers, veterinarians and nutritionists. Worksheets, checklists and handouts help guide the children through each section and accentuate learning.

The exhibit was designed by members of the National Zoo and Friends of the National Zoo's Department of Education and Volunteer Services. "The kids are actually doing real work, but they're using a lot of imagination, a lot of playing and a lot of pretend," says Judy Manning, education manager in the department.

The first area is the Small Mammal House, which is based on the National Zoo's Brazilian tropical rain-forest exhibit.

"Duties in this area are similar to those of a zoo keeper maintaining an animal exhibit," Manning explains. The children put on brown smocks, grab walkie-talkies, hide food, trap animals and, of course, take fecal samples.

"The scope of a zoo keeper's job goes far beyond daily animal care," Manning adds. In the keeper's office, children perform clerical duties, such as record keeping, researching and setting up talks about the animals. A computer (not turned on), reference books and a research project aid the children's imaginations.

Then the brown smocks come off and aprons go on, so that children can start their careers as nutritionists in the commissary. The children prepare the animal diets by referring to menu cards for different species. They handle realistic-looking plastic vegetables and grains in glue-sealed containers. "We don't want rice all over the floor," Manning explains.

Finally, the children put on scrubs in the animal hospital to become veterinarians. Using the operating table, they examine a plush tiger and check a real X-ray. In the intensive care unit, children observe the progress of a plush infant owl. Other activities, such as ordering medicines and giving a diagnosis based on symptoms, also are featured. "We tried to include as much realism as possible in this exhibit," Manning says.

## Developing the exhibit

In preparation for the exhibit, staff in the Department of Education and Volunteer Services accompanied zoo keepers, nutritionists and veterinarians as they walked through their daily schedules and gave behind-the-scenes tours, supplying pertinent information.

"All the staff in these three areas of the Zoo continue to help us with the exhibit,

especially with the volunteer program," Manning adds. "And we rely on the volunteers to be the ones who run 'How Do You Zoo?'"

Volunteers help with the flow of children from area to area and also answer questions from children and parents. There is an adult volunteer program year-round and a volunteer program for teen-agers during the summer.

Volunteers must attend a four-day training program, during which they meet with National Zoo employees who perform the duties mirrored in the exhibit.

"The training part was...intense," recalls 16-year-old volunteer Ghislaine Hanner. "We went all throughout the Zoo. We got deep into it."

Through the extensive training process and the different activities of the "How Do You Zoo?" exhibit, volunteers and exhibit-goers—no matter what age—get the

opportunity to see how different zoo professions interact.

"If the kids do the handouts and different activities in-depth, they can see how these three areas link up with each other and that the Zoo is one big community that needs all its parts to work," says Lois Phoebus, program supervisor in the Education and Volunteer Services Department.

"The children absolutely love it," Phoebus adds. "The main problem we encounter is that parents want to get out into the Zoo and see other exhibits, while the kids just get into an imaginary world and want to stay."

"How Do You Zoo?" is located in the National Zoo's Visitor Center and is open Monday through Friday, from 1 to 3 p.m., during the summer and on Saturdays and Sundays, from 10 a.m. to 4 p.m., year-round. For more on volunteer opportunities, call Lois Phoebus at (202) 673-4671.



A stuffed tiger receives an injection and check up from a young veterinarian, while her "colleague" discusses the animal's symptoms on the telephone in the "How Do You Zoo?" hospital at the National Zoological Park. (Photo by Jessie Cohen)

'Satellite imaging,' continued from Page 2

## Understanding the data

Back in his office, Johnston organizes large quantities of data collected during his trips around the globe, using a collection of hard drives, laptops, monitors and CD-ROMs.

Johnston, a 10-year veteran geographer at the National Air and Space Museum, also uses the Global Positioning System to map and measure change on the Earth's surface, from the movement of lava flows to the effects of flooded rivers and the annual expansion of asphalt and concrete.

"One of the things we do here is comparative planetology," he explains. "Then we can make assumptions about similar

characteristics [of ground features] we see on other planets. Because we can't actually go to other planets, we examine our own instead.

"New remote-sensing technology is changing the way we view the surface of the Earth," Johnston adds. "The newest sensors are able to return a higher quality of data. We are able to do things today we could never do before. We're still figuring out how to use these images intelligently."

## The results

The ongoing outcome, however, is a robust archive of new images of the Earth. Johnston's contributions to this archive range from his work on biomass maps of Cana-

dian forests to images of the semi-arid savanna bushland in central Kenya.

Johnston also has helped develop methods for mapping land cover changes in urban areas. "If you look at satellite images of the Earth from one year to another," he explains, "the differences don't seem to be that great. But when you compare images of the past 10 or 20 years, the evidence of urban growth is pretty incredible."

The Center for Earth and Planetary Studies is one of very few organizations using the remote-sensing technology in scientific fieldwork as part of its mission to monitor terrestrial transformation, Johnston says.

"We're looking at how the Earth is changing through time," he adds. "It's the

planet we call 'home,' so, naturally, we have a lot of interest in it."

## Corrections

Rutherford B. Hayes' wife, Lucy, was the first president's wife to assume the title "first lady" during his administration, from 1877 to 1881. Vice President Richard Nixon was the first to campaign in all 50 states during his unsuccessful bid for the presidency against John F. Kennedy in the 1960 election. Both items were incorrectly reported in the winter issue of Research Reports.



ity of segregation. "It was also at Mr. Brooks' home," he says, "that we found the weigh-up scales that field hands used to weigh the cotton picked each day. Along with other agricultural objects at the

"They had to find the stuff, and they had to trust you with it.

"There have been collectors coming in and out of Memphis for 40 years," he adds. "Promises were made, but many things were loaned out and never returned. The Smithsonian was just a bunch of

institutions and government organizations for daily operations.

**Establishing trust**

Ernest Withers had been a photographer since the late 1940s and had taken many pictures that became extremely valuable, including one of B.B. King and Elvis Presley. "Over the years, Mr. Withers had been ripped off for his photography," McGovern explains. "So, when I first contacted him, he was embittered. He thought I was just another white boy who wanted his photos of B.B. King."

As a result, McGovern backed off from his requests for images and implored Withers to tell about his experiences. "He had been one of the first African American police officers in Memphis, as well as a photographer," McGovern says. "He was a 'witness' to this community."

"Son, you want a historian. You don't need me. I'm not sure I can help you," Withers had said.

Finally, after 15 minutes of coaxing Withers to talk about his own experiences living and working in Memphis, McGovern took a different tack. "Look, Mr. Withers," McGovern recalls saying, "the world knows B.B. King. I'm here because we've started learning about Bill Harvey.

"I knew that Harvey was a local Memphis musician," McGovern continues, "He put together B.B. King's first band, staffing it with local musicians. He sent them on the road and promoted B.B.'s records. I told Mr. Withers that the community had taught us about Harvey and that I wanted to share that with the exhibition audience."

"Boy, are you reading from a script?" Withers responded.

"No, sir, just telling you the truth," McGovern answered.

"Well, son, if you know Bill Harvey, you come on down and see me."

That's the trust, McGovern says. In the end, Withers' images were featured throughout the exhibition. Withers often visits the exhibition, bringing along many guests.

**Further research**

McGovern is now working on a book titled *Only in America: Popular Music and*



This exhibition case contains a shirt, jacket and shoes worn by rock 'n' roll legend Elvis Presley during his early singing career. The guitar shown was played by Presley's guitarist, Scotty Moore, and can be heard on such tunes as "That's All Right Mama," "Good Rockin' Tonight" and "Mystery Train." (Photo by Jeff Tinsley)

beginning of the exhibition, the scales helped set the stage of the rural South in the 1930s."

Many of the objects were difficult to acquire. "People had to open up their closets and storage areas," McGovern says.

fresh-faced people making the same kinds of promises."

Acutely conscious of this tension, the organizers arranged for the exhibition to be located in Memphis, utilized local vendors, and integrated a broad range of local



Charlie McGovern shows off a 1947 Wurlitzer jukebox from the National Museum of American History collections. (Photo by Jeff Tinsley)

*U.S. Society, 1930-1977*. He invites people from the music industry and the fans to tell their experiences of the music they loved. "I'm interested in talking to people who have vivid memories of listening to the radio, of going to rock 'n' roll shows and those who, perhaps, remember how the music contributed to their broader awareness of the world," he says.

Readers can contact McGovern at (202) 357-2385 or send e-mail responses to mcgovern@nmah.si.edu.

gallery," Bird says. "He didn't have any paintings, so he distributed about 20 paint-by-number kits to cabinet secretaries and Oval Office visitors who did them, assuming it was the president's wish." Thus, there are paintings by FBI Director J. Edgar Hoover, Special Assistant to the President Nelson Rockefeller, singer Ethel Merman and an original amateur work by author and ambassador Clare Boothe Luce.

**A resurgence of interest**

The giant paint-by-number banner outside the museum created the public interest that Bird had hoped for. Robbins, now 75 years old, provided the line art and the 35-color paint palette.

On April 4, a select group of Smithsonian staff and lenders, which included

Robbins, began to paint the 18-foot-wide-by-21-foot-high image placed on a banner facing the National Mall. "We painted for about three hours a day until it was done," Bird says. "It took about 10 days."

Riding the wave of retro interest in the paint-by-number phenomenon, the show has already received significant attention from The Chicago Tribune, The Detroit News, The Boston Globe and Esquire Magazine, among others.

Bird hopes that the exhibition sends a message to paint-by-number veterans. "It's okay to like this stuff. People can now admit they did paint-by-number and enjoyed it, Bird says. "Ultimately, it helped create a participatory audience for art. And, for many, it lead to art or, at least, to a new appreciation of the world outside the frame."



Larry Bird in front of a photo of typical 1950s tract housing that helped shape American suburbia, the same culture that fueled the paint-by-number craze (Photo by Angela Cervetti)



## Research Highlights

**Black holes.** A research team led by Harvard-Smithsonian Center for Astrophysics astronomers has used the Chandra X-ray Observatory to study some of the darkest black holes yet observed. Their work strongly confirms the reality of the “event horizon,” the one-way membrane around black holes predicted by Einstein’s theory of relativity. With results that fundamentally differ from earlier black hole studies, the scientists showed that some recently discovered black holes are not only ultradense but also actually possess event horizons that “vacuum up” energy from their surroundings. These results were presented at a recent meeting of the American Astronomical Society in San Diego.

**Virtual gallery.** The Smithsonian Center for Latino Initiatives has launched its first online exhibition, “Revealing Personal Identity: The Indigenous Vision of Manuel Carrillo.” The show, curated by Melissa Carrillo (no relation to the photographer), features 28 black-and-white images of the daily life of people on both sides of the Mexican-U.S. border. Visitors can reach the Latino Virtual Gallery by logging onto [latino.si.edu/virtualgallery](http://latino.si.edu/virtualgallery). The Carrillo



This photograph, “Ill woman on bench,” taken by Manuel Carrillo in Guanajuato, Mexico, is one of many that can be seen on the Latino Virtual Gallery Web site.

exhibition is a collaboration between the Special Collections Department of the Library at the University of Texas in El Paso and the Center for Latino Initiatives.

**Pumpkins.** Cynthia Ott, a Smithsonian predoctoral fellow, is tracing the changing form and function of pumpkins in America. Utilizing the collections of the Smithsonian’s National Museum of American History, Behring Center and National Museum of Natural History and the Smithsonian American Art Museum, Ott’s study includes examining the roles of pumpkins as a food source, use in home décor and inclusion in other ephemera.

**Central African rain-forests.** The Smithsonian Institution Monitoring and Assess-

ment of Biodiversity Program has recently been awarded a grant from the Shell Foundation to further investigate the link between industry, development and biodiversity in environmentally sensitive areas. The goals of the initiative are to expand the ability of the people of Gabon to conserve biodiversity and to create strategic models to link conservation and development. The first project, based near Shell’s operation in Gabon in Central Africa, will explore these issues in the Gamba complex. The complex is a coastal area in Gabon that consist of various land-management units, reserves and hunting domains. Gabon, which has 90 percent forest cover, is known for its exceptionally rich fauna, most notably, healthy populations of elephants, gorillas and chimpanzees.

**Rain-forest loss.** As much as 42 percent of the Amazon River basin of Brazil will be seriously damaged or lost altogether in the next two decades if that country’s infrastructure development projects go forward as planned, according to a joint U.S.-Brazilian team of biologists reporting in the Jan. 19, 2001, issue of the journal *Science*. The team, headed by William Laurance, a scientist with the Smithsonian Tropical Research Institute in Panama, is working in Manaus, Brazil, where members conducted what they characterize as

the first systematic assessment of the effects of development trends and projects on the region.

**Honor Wall.** Plans are under way at the Smithsonian’s National Museum of the American Indian to launch a new fundraising project called the Honor Wall. The wall, to be located on the balconies overlooking the central welcoming area of the museum, called the Potomac, will contain the names of museum supporters. The cost to have your name or the name of someone you wish to honor inscribed on the wall is \$150. The museum expects to launch the fund raiser sometime in June. For additional information, call Member Services at (202) 357-3164, or send e-mail requests to [aimember@nmai.si.edu](mailto:aimember@nmai.si.edu).



This double compact disc draws upon the collection of the Smithsonian Folkways archives to create a history of African American life and culture in sound.

## Series Publications

The following publications on research in various fields were issued during the period Jan. 1 through Feb. 28, 2001, by Smithsonian Institution Press in the regular Smithsonian series. Diane Tyler is managing editor. Requests for series publications should be addressed to Smithsonian Institution Press, Series Division, 750 Ninth St. N.W., Suite 4300, Washington, D.C. 20560-0950.

### Smithsonian Contributions to Botany

- 91 *Epidermal Features and Spikelet Micromorphology in Oryza and Related Genera (Poaceae: Oryzaceae)*, by Edward E. Terrell, Paul M. Peterson and William P. Werger, 50 pages, 33 figures, 3 tables.

### Smithsonian Contributions to Zoology

- 611 *Lace Bug Genera of the World, II: Subfamily Tinginae: Tribes Litadeimi and Ypsotingini (Heteroptera: Tingidae)*, by Richard C. Froeschner, 28 pages, 20 figures, 2 tables.

## Books & Recordings

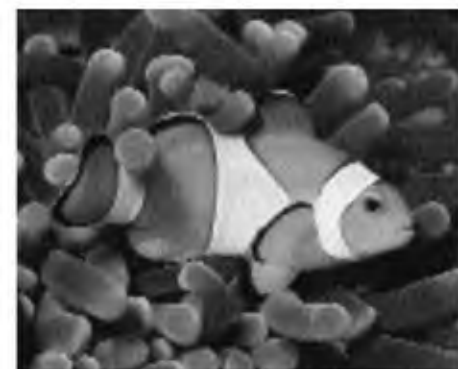
**Feasts: Archaeological and Ethnographic Perspectives on Food, Politics and Power**, edited by Michael Dietler and Brian Hayden (Smithsonian Institution Press, 2001, \$55 cloth; \$29.95 paper). This collection of 15 essays combines ethnographic and archaeological perspectives to examine the cultural, economic and political importance of feasts, considering traditional and modern practices from several countries.

**Rethinking Cold War Culture**, edited by Peter J. Kuznick and James Gilbert (Smithsonian Institution Press, 2001, \$39.95 cloth; \$18.95 paper). By examining popular culture, politics, economics, gen-

der relations and civil rights, the book’s contributors contend that, while there was little fundamentally new about American culture in the Cold War era, the Cold War shaped and distorted virtually every aspect of American life.

**Astrobiology**, by Monica Grady (Smithsonian Institution Press, in association with the Natural History Museum, London, 2001, \$14.95). Beginning with the Big Bang and formation of the universe, this richly illustrated book explores the emergence of life on Earth and beyond.

**Coral Fish**, by Linda Pitkin (Smithsonian Institution Press, in association with the Natural History Museum, London, 2001, \$14.95). More than 100 photographs



This image of a false clown anemonefish, *Amphiprion ocellaris*, is one of the many color images of coral fish photographed by Linda Pitkin for her book *Coral Fish*.

depict the variety of fish supported by coral reefs around the world.

**Environmental Effects on Volcanic Eruptions: From Deep Oceans to Deep Space**, edited by James R. Zimbelman and Tracy K.P. Gregg (Kluwer Academic/Plenum Publishers, 2000, \$89.50). This book represents current research on the effect that environmental conditions have on volcanic eruptions and the subsequent emplacement of volcanic products. To order copies of the

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## Inside Pitch: Life in Professional Baseball

By George Gmelch (Published by Smithsonian Institution Press, 2001, \$21.95)

For fans, baseball is entertainment, a diversion from the tedium of everyday life. For players, however, baseball is a demanding occupation so encompassing that it becomes a way of life.

Starting with the spark of ambition to play ball professionally and ending with the necessity of reinventing life after baseball, George Gmelch, former minor leaguer and professor of anthropology at Union College in New York, describes the lives of the men who work at America's national game.

Twenty-four years after his own final road trip with the Detroit Tigers' organization, Gmelch went on the road again with a bus load of players, this time with a pen and pad to record the details of life around the "diamond."

In *Inside Pitch: Life in Professional Baseball*, Gmelch looks at players' experiences

throughout their careers: being scouted, becoming a rookie, moving through or staying in the minors, preparing mentally and physically to play day after day, coping with slumps and successes, and facing retirement. He examines the players' routines and rituals, describes their joys and frustrations, and investigates the roles of wives, fans and groupies in their lives.

"When I first began writing the book," Gmelch says, "I wasn't sure how I'd be received by the players. But it turned out not to be a problem. Part of it was that I had been a baseball player; the other part was that I wasn't writing about something controversial. The players understood that I was an anthropologist writing a book, not a news reporter digging for a sensational story. With the exception of the chapter on groupies, which was a sensitive topic for some players, most of my questions were fairly harmless."

Gmelch started his "fieldwork" in 1991 by accompanying teams on road trips. His first trip was with the Birmingham Barons. After a few summers of observing the minor leagues, he shifted his attention to the majors. He paid daily visits to the ballpark, arriving with the ballplayers and staying through the evenings to hang out with them. He'd even stay in town for a few days interviewing both visiting and home teams. He would return home to



George Gmelch playing for the Rocky Mount Leafs in 1967, the Detroit Tigers' Carolina League affiliate (Photo courtesy of George Gmelch)

transcribe interviews and field notes, and then, it was back out on the road again.

"By the time I sat down to write," he notes in the book, "I'd spent five seasons in the 'field,' twice the time I had planned."

Gmelch never knew just how far he could have gone in baseball. His career was cut short by a threatened libel suit. "During my third season, in 1967," he says, "I wrote a controversial article in my hometown area newspaper in San Francisco about racism in the Southern town of Rocky Mount, N.C., where my team was located, and its police chief's alleged connection to the Ku Klux Klan.

"Someone sent a copy of the article to the police chief and another to the Chamber of Commerce," he continues. "It also ended up in the Detroit Tigers' front office. The police chief threatened to sue, and I was put on the disabled list and released from the ball club. It was a very unsatisfactory ending to my career."

Gmelch says, however, that his three-year stint with the Tigers and a two-year run with a Canadian ball club taught him a great deal about life. "A lot of skills you learn playing baseball are transferrable to life outside the game," he says. "Discipline, good work habits, the ability to deal with adversity and failure, and sensitivity to ethnicity and racism were all things I learned from baseball, and I think they've made me a better teacher."

—Jo Ann Webb



Jim Saul, left, manager for the Jamestown Jammers of the New York-Penn League, and pitching coach Mark Ross are shown here looking over maps to find out where they would be traveling during the 1999 season. (Photo by Jim Riggs, Jamestown Post-Journal)

'Books & Recordings,' continued from Page 7

book, write to Kluwer Academic Publishers, Customer Service Department, P.O. Box 358, Accord Station, Hingham, Mass. 02018-0358; or call (781) 871-6600; or order online at [www.wkap.nl](http://www.wkap.nl). Send e-mail requests to [kluwer@wkap.com](mailto:kluwer@wkap.com).

**Primate Taxonomy**, by Colin Groves (Smithsonian Institution Press, 2001, \$65). The author gives a complete taxonomy of living primates, reviewing the history and practice of their classification and providing an up-to-date synthesis of recent molecular and phylogenetic research.

**Every Tone a Testimony** (Smithsonian Folkways Recordings, 2001, \$23 CD). Encompassing both the African American oral and literary traditions, these 59 tracks, on two compact discs, feature an unparalleled assembly of voices in music, oratory, poetry and prose by historically renowned black musicians, writers and activists.

**Honeyboy Edwards: Mississippi Delta Bluesman** (Smithsonian Folkways Recordings, 2001, \$15 CD). Edwards' guitar style and repertoire draw from three connected sources: the Mississippi Delta, Memphis and Chicago.

**Kevin Burke: Sweeney's Dream** (Smithsonian Folkways Recordings, 2001, \$15 CD). This compact disc, originally issued in 1977, features 17 tracks of fiddle tunes from County Sligo, Ireland.

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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