The David H. Koch Hall of Human Origins opened on March 17, 2010, to mark the 100th anniversary of the National Museum of Natural History’s building on the National Mall. The 15,000-square-foot exhibition examines how humans have evolved over the past 6 million years.

Report to the Regents
Second Quarter, Fiscal Year 2010
Broadening Access: Visitation Summary

In the first two quarters of fiscal year 2010, the Institution counted 10.3 million visits to its museums in Washington, D.C., and New York, plus the National Zoological Park and Steven F. Udvar-Hazy Center—down about 4 percent from the same period in fiscal year 2009. This small dip in visitorship should be considered in light of the paralyzing snowstorms that hit the Washington, D.C., region in December 2009 and February 2010, and shut down Smithsonian museums for several days.

In the first six months of fiscal year 2010, the Smithsonian also counted:

- Approximately 2.5 million visits to traveling exhibitions mounted by the Smithsonian Institution Traveling Exhibition Service; and
- More than 93 million visits to Smithsonian Web sites—down about 4 percent from the figure for the first half of fiscal year 2009.

Visits to Smithsonian Museums

First Two Quarters of Fiscal Years 2008, 2009, and 2010
Grand Challenges Highlights

Understanding the American Experience

Research

The National Museum of the American Indian produced the latest in a series of contemporary art catalogues. *HIDE: Skin as Material and Metaphor* accompanies an exhibition of the same name at the Museum’s George Gustav Heye Center in New York City.

This quarter saw the publication of two books by National Air and Space Museum staff:

- Photographers Mark Avino and Eric Long worked with Roger Connor and Christopher Moore of the Museum’s Aeronautics Division on *In the Cockpit II: Inside History-Making Aircraft of World War II*.
- Melissa Keiser of the Museum’s Archives and David Romanowski of its Exhibits Design Division co-authored *Legacy of Flight: Images from the Archives of the Smithsonian National Air and Space Museum*.

The Community and Creativity Project, an initiative of the Anacostia Community Museum, will soon begin a process of documenting cultural activities in far southeast Washington, D.C., that is expected to culminate in a community-based exhibition, a published guide, and Web-based community resources.


In collaboration with National Museum of Natural History anthropologist Douglas Owsley, Museum Conservation Institute scientists are chemically studying human remains from a cemetery at Fort Craig, New Mexico. The analysis of Native, European, and African American remains will provide insight into diet, health, access to pharmaceuticals, and social divisions at the Fort.

A book by the Archives of American Art’s Liza Kirwin, *Lists: To-dos, Illustrated Inventories, Collected Thoughts, and Other Artists’ Enumerations from the Smithsonian’s Archives of American Art*, was published by Princeton Architectural Press to accompany an exhibition of the same name.
The Asian Pacific American Program sponsored “After the War: Japanese American and African American Community Relationships in post-World War II California,” a panel discussion that examined the conflicts and activism of the Japanese American and African American communities in Los Angeles. The Smithsonian Institution Libraries announced the new Margaret Henry Dabney Penick Resident Scholar Program, a fellowship to support senior scholars’ research on the legacy of Patrick Henry and his political circle, as well as other historical subjects from the Colonial and Early National periods.

Broadening Access

The First Ladies at the Smithsonian exhibition at the National Museum of American History has long been one of the most popular Smithsonian attractions. A new gallery in the exhibition, A First Lady’s Debut, opened on March 10, 2010. It focuses on media coverage of First Ladies during inaugural events and highlights 11 gowns worn by the most recent First Ladies, from Mamie Eisenhower to Michelle Obama.

With funding from a Smithsonian Web 2.0 grant, a number of units are collaborating to create a Web site on the civil rights movement that will showcase the breadth of Smithsonian collections and expertise, and include Web 2.0 features.

Framing the West: The Survey Photographs of Timothy H. O’Sullivan (February 12–May 9, 2010) opened at the Smithsonian American Art Museum. The exhibition, organized in collaboration with the Library of Congress, features more than 120 early landscape photographs and stereo cards of the American West.

The Art of Gaman: Arts and Crafts from the Japanese American Internment Camps, 1942–1946 at the Renwick Gallery (March 5, 2010–January 30, 2011) features art from internees and their families. The honorary patron is Norman Y. Mineta, a former U.S. Representative, Secretary of Transportation, and Smithsonian Regent, who was interned as a child. The show has attracted wide coverage in media including the Washington Post, BBC World News America, and National Public Radio.

At the Game Developers Conference in San Francisco, Georgina Goodlander of the Smithsonian American Art Museum and Chris Melissinos, chief gaming officer at Sun Microsystems and founder of PastPixels, presented “A Day at the Museum: How the Smithsonian is Embracing Games.”
The National Museum of American History held several programs to mark Black History Month:

- In partnership with the National Museum of African American History and Culture, the Museum presented a three-day family festival featuring music, historic theater, and interactive activities focusing on Martin Luther King and the Civil Rights Movement.
- The Smithsonian honored the three living members of the “Greensboro Four” with the James Smithson Bicentennial Medal. These men challenged Jim Crow laws by sitting in “whites-only” seats at a segregated lunch counter. The day after the ceremony, the honorees shared their experiences in a televised “youth town hall” that was broadcast to classrooms across the nation.
- The Museum debuted “Sing for Freedom,” an interactive daily program that explores the role of music in the struggle for freedom, and was honored to present an excerpt at the White House on February 26, 2010, as part of the First Lady's commemoration of Black History Month.

The National Museum of the American Indian presented a range of offerings on the Mall, including:

- “Sharing Our Stories,” a storytelling festival that drew a physical audience of 5500; several of the programs were also Webcast live, drawing tens of thousands of additional viewers.
- The annual Power of Chocolate program included cooking demonstrations, hands-on family activities, presentations by indigenous chocolate-makers, and more. The event was cosponsored by the Smithsonian Latino Center.
- Also in partnership with the Smithsonian Latino Center, the Museum hosted a concert by the Buenos Aires ensemble Capilla del Sol to kick off the 2010 Argentina at the Smithsonian series.

The opening of its One Life: Echoes of Elvis exhibition (January 8–August 29, 2010) drew international attention to the National Portrait Gallery in media as varied as National Public Radio, Good Morning America, Switzerland’s Neue Zürcher Zeitung, France’s Le Monde, Indonesia’s Bisnis, the Kuwait Times, and China Daily. Curator Warren Perry’s quip “Everybody needs to have a moment with Elvis” was the “Quote of the Day” for Time magazine online on January 8, 2010, the birthday of “The King.”

Highlights of National Museum of African American History and Culture programs included a panel discussion on author Ralph Ellison’s unpublished follow-up to his 1952 classic Invisible Man; the staging of an original theatrical work, Words Between Two Reformers: Mary McLeod Bethune and Eleanor Roosevelt, in collaboration with the National Portrait Gallery; and a variety of programs to mark the February 2010 celebration of Black History Month.

Lions of Industry, Mothers of Invention, an original interactive production from The Smithsonian Associates’ Discovery Theater that celebrates African Americans who overcame great odds to succeed, was presented in 16 D.C.-area schools, where it was seen by nearly 4,000 students and teachers.
The George Gustav Heye Center of the National Museum of the American Indian opened Part I of *HIDE: Skin as Material and Metaphor* (March 6–August 1, 2010). This exhibition and the programs connected to it explore skin as both an artistic medium and a powerful metaphorical tool.

The National Postal Museum launched several online exhibitions on its Arago collections Web site:

- Parts three and four of *Women On Stamps* focus on women who have made significant contributions to the visual arts, literature, and performing arts.
- *Playing To Win: American Sports and Athletes On Stamps* highlights sports, athletes, and great moments in American athletics, as depicted on U.S. postage stamps.
- *Remember the Pony* looks at the short-lived but now legendary Pony Express mail delivery system.

Part I of the *Archives of American Art* exhibition *Lists: To-dos, Illustrated Inventories, Collected Thoughts, and Other Artists' Enumerations* was on display in the Lawrence A. Fleischman Gallery of the Reynolds Center from February 5 to June 1, 2010.

A condensed version of the *Anacostia Community Museum*'s exhibition *East of the River: Continuity and Change* opened at the Historical Society of Washington D.C. and will remain on view indefinitely.

## Unlocking the Mysteries of the Universe

*Research: Smithsonian Astrophysical Observatory (SAO)*

Harvard-Smithsonian Center for Astrophysics scientists’ research appeared in 98 peer-reviewed papers and 327 other articles at conferences and other venues. Among the high-profile journals that carried Center results were *Nature* and *Science*.

In February 2010, NASA launched the Solar Dynamics Observatory, the most advanced spacecraft ever designed to study the sun. The data it provides will give researchers insights that may eventually allow predictions of solar activity that can affect spacecraft, astronauts, and electronic systems on Earth. Under contract to Lockheed-Martin, SAO built and assembled much of the Atmospheric Imaging Assembly instrument for the mission.
SAO astronomers used the Submillimeter Array telescope to get the sharpest view ever of “star factories” in a galaxy 10 billion light-years away that is making new stars 250 times faster than the Milky Way. Due to the time it takes light to travel to Earth, the galaxy is seen as it existed in the distant past, just 3 billion years after the Big Bang—the epoch when the majority of stars were born.

SAO Senior Physicist Margaret Geller won the James Craig Watson Medal of the National Academy of Sciences for her lifetime scientific achievements and the Henry Norris Russell Lectureship of the American Astronomical Society for her work on the distribution and clustering of galaxies.

Research: National Air and Space Museum’s (NASM) Center for Earth and Planetary Studies (CEPS)

Thomas R. Watters published an edited volume, *Planetary Tectonics*, that describes the tectonic landforms of solid bodies throughout the solar system and presents a survey of tectonic structures on several planets, moons, and asteroids.

CEPS staff had a major presence at the 41st annual Lunar and Planetary Science Conference, making 13 presentations and serving as coauthors of an additional 18; topics ranged from ancient lakes on Mars to radar studies of the Moon to the MESSENGER mission to Mercury.

Other Research

The Smithsonian is a partner on the OSIRIS-Rex program, chosen by NASA as one of three finalists for the agency’s next venture into the solar system. If selected, the mission would land on an asteroid thought to contain the primitive building blocks of life. Tim McCoy of the National Museum of Natural History’s mineral sciences department would be involved in analysis of images and samples.

A meteorite that produced a colorful streak in the sky visible from southern New Jersey to southwestern Virginia before crashing through the roof of a Lorton, Virginia, doctor’s office on January 18, 2010, was identified by Mineral Science Division staff at the National Museum of Natural History as a rather ordinary stony chondrite meteorite, weighing about two-thirds of a pound.

Broadening Access

Highlights of physical and virtual access at the National Air and Space Museum included the following:

- The “Mars Corner” of the *Exploring the Planets* gallery was upgraded to feature material on recent missions, such as the Mars Exploration Rovers, Mars Reconnaissance Orbiter, Mars Express, and Mars Phoenix, and a prospective treatment of the upcoming Mars Science Laboratory.
- Radar Mapping of the Moon, a Web page based on the work of Bruce Campbell of the Center for Earth and Planetary Studies, will provide updates on an effort to produce a high-resolution radar map of the Moon and should be of interest to both the public and researchers.

- In collaboration with the **Smithsonian Office of Accessibility**, the Visitor Services Division installed an assistive listening device at the National Mall building welcome center.

In collaboration with **Smithsonian Astrophysical Observatory** educators, the **Smithsonian Center for Education and Museum Studies** produced “The Universe: An Introduction,” the spring 2010 issue of its free publication for educators, *Smithsonian in Your Classroom*. It features an interview with astronomer Lisa Kaltenegger on the search for life on planets outside the Earth’s solar system.

Phil Sadler of the **Smithsonian Astrophysical Observatory** won the American Astronomical Society’s Education Prize.

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**Understanding and Sustaining a Biodiverse Planet**

*Research: National Zoological Park’s (NZP) Smithsonian Conservation Biology Institute (SCBI)*

In the second quarter of fiscal year 2010, NZP researchers had 26 publications in peer-reviewed journals, including four high-impact journals (*The Condor, Biological Conservation, Conservation Biology,* and *Ibis*).

The Panama Amphibian Rescue Project, a partnership including NZP and the **Smithsonian Tropical Research Institute**, established its first rescue pod (a colony of amphibians at risk of extinction due to an invasive pathogen). The Project also is developing technologies to control the amphibian chytrid fungus so that captive amphibians may be reintroduced to the wild one day.

JoGayle Howard of SCBI received the U.S. Fish and Wildlife Service’s Recovery Champion Award (for contributions to the conservation and recovery of threatened species in the United States) for her work with the endangered black-footed ferret.

Coral specialist Mary Hagedorn at work.

Mary Hagedorn of the SCBI Center for Species Survival participated in a workshop in Singapore on coral conservation that sought both to teach Asian and European professionals how to collect and rear coral spawn, and to educate international dredging companies about coral ecology.

SCBI’s Janine Brown coedited a special issue of the journal *Zoo Biology* on the care of elephants in Association of Zoos and Aquariums institutions.

A second edition of *Introduction to Conservation Genetics*, coauthored by Jonathan D. Ballou of the SCBI Center for Conservation and Evolutionary Genetics, was published in March 2010. This authoritative textbook is widely used in universities and workshops across the world.

Robert Rice of the SCBI’s Migratory Bird Center participated in a Biodiversity Markets Symposium at Duke University, sitting on a panel that addressed the role of certification and certified products.
Research: Smithsonian Environmental Research Center (SERC)

SERC’s Marine Invasions Program has expanded to tropical ecosystems. Greg Ruiz and his colleagues began a new project, funded by the Department of Defense, to evaluate the risk of invasions in Guam and Micronesia and develop a biosecurity plan to minimize the spread of non-native species associated with military and commercial activities in the region.

In a paper in the March 2010 issue of *Wetlands*, SERC’s Karin Kettenring, Melissa McCormick, and Dennis Whigham explore the spread of the non-native reed *Phragmites australis*, which arrived in the United States around 1800, began to spread rapidly around the Chesapeake Bay in the 1980s, and now dominates many wetlands in the region. They hope their research will inform a new strategy for dealing with *P. australis* that will give native plants room to grow.

In coastal waters around the world, there are more than 500 hypoxic zones where dissolved oxygen concentrations are so low that they threaten aquatic life. SERC’s Denise Breitburg recently received a grant from the NOAA Center for Sponsored Coastal Ocean Research to study shallow water hypoxia and its effects on individuals, populations, and ecosystems.

Research: National Museum of Natural History (NMNH)

Scientists from the Department of Invertebrate Zoology contributed to *Gulf of Mexico Origin, Waters and Biota: Volume 1, Biodiversity*, a volume on the fauna of the Gulf of Mexico that covers 15,419 species.

At a recent scientific conference, Frank Crandall presented his discovery of a new family of ribbon worms, based on specimens collected by the U.S. Antarctic Program. NMNH has the most extensive collection of Antarctic invertebrates in the world, without which such research would not be possible.

Kris Helgen of the Department of Vertebrate Zoology coauthored a paper in the November 2009 issue of *Genome Research* that details a plan to sequence the genomes of more than 10,000 vertebrate species. News coverage of this ambitious project, known as the Genome 10K Initiative, included profiles in *Nature*, *Science*, and dozens of other print and online media.

Research: Smithsonian Tropical Research Institute (STRI)

STRI postdoctoral fellow Sean M. McMahon coauthored (with Geoffrey Parker and Dawn Miller of the Smithsonian Environmental Research Center) an article in the *Proceedings of the National Academy of Sciences* that finds forests in the eastern United States are growing faster in response to climate change. This important finding is an early result of a project, funded by the HSBC Climate Partnership, to determine if trends in tropical forest dynamics also can be seen at temperate sites.
Scientists at STRI’s new insect neurobiology lab discovered that the brain region responsible for learning and memory is bigger in social queens than solitary queens in the tropical bee *Megalopta genalis*. Their study, published online in the *Proceedings of the Royal Society B (Biological Sciences)*, is the first comparison of brains within a single species in which some individuals are social and others are not.

STRI hosted four international conferences/workshops on science and conservation in the tropics:

- “The Mesoamerican Conference on Reforestation with Native Trees” (January 21–22, 2010), at which experts from Mexico, Costa Rica, Brazil, and other countries of the region shared their experiences of reforestation with native species.
- “Subduction Zones and Bent Orogenic Belts of the Caribbean” (February 8–11, 2010) explored the evolution of the Isthmus of Panama.
- “Taking Stock” (March 1–4, 2010) brought together an international team of scientists to discuss outputs of the HSBC Climate Partnership, currently at the mid-point of its five-year duration.
- “The 2010 International Workshop on Crassulacean Acid Metabolism” (March 22–24, 2010), where researchers from eight countries presented findings on biofuels, adaptation to extreme temperatures and drought, and flexible gene expression in response to environmental change.

**Broadening Access**

The Virtual Watershed project of the *Smithsonian Latino Center’s* Latino Virtual Museum (LVM)—a partnership with the *National Museum of Natural History*, the *Smithsonian Environmental Research Center*, the *Smithsonian Tropical Research Institute*, and the *National Zoo*, plus the Grid Institute of Boston College—aims to create a state-of-the-art, immersive, 3-D digital environment for learning about watershed ecosystems.

The Smithsonian has joined Arizona State University (ASU) in an innovative biodiversity education partnership that will allow ASU students and faculty to participate in fieldwork at Smithsonian facilities in Panama; develop virtual classrooms; and enable Smithsonian scientists to participate in ASU degree programs. *Smithsonian Tropical Research Institute* Director Eldredge Bermingham and Robert E. Page Jr., Dean of the ASU School of Life Sciences, will direct the program.

Biodiversity Heritage Library program director Tom Garnett and Martin Kalfatovic, both of the *Smithsonian Institute Libraries* (SIL), attended a meeting in São Paulo, Brazil, that brought together participants in a Brazilian-funded initiative to digitize libraries’ biodiversity collections.

The Encyclopedia of Life (EOL) Rubenstein Fellows Program, funded by Regent David M. Rubenstein, was launched at the *National Museum of Natural History*. The 17 accepted fellows will prepare species pages for the EOL Web site, which seeks to document every known species.
The exhibition *Deeper than Light*, a blend of art, science, and technology that reveals the unusual organisms living in the depths of the ocean, was on view in the National Museum of Natural History’s Ocean Focus Gallery (February 20–May 23, 2010).

Valuing World Cultures

Research and Scholarship

In *What Does It Mean to Be Human?*, a companion book to the National Museum of Natural History’s David H. Koch Hall of Human Origins, authors Rick Potts of the Museum’s Department of Anthropology and Chris Sloan present and expand upon the exhibition’s story of how human physical traits and behaviors emerged. Conservators from the Museum Conservation Institute joined an archaeological team from the Smithsonian Tropical Research Institute to excavate a pre-Columbian mortuary complex at El Caño in Coclé Province, Panama. The team discovered extensive ceramic offerings and skeletal remains with regalia made of gold, animal teeth, and other exotic materials. Their work will be featured in an upcoming issue of *National Geographic* magazine.

The Smithsonian Latino Center’s Central American Ceramics Research Project, led by Professor Alex Benítez of George Mason University, is exploring pre-Columbian ceramic traditions, with an eye to a future exhibition, public programs, and education and outreach activities.

Following excavations along coastal areas, Torben Rick of the National Museum of Natural History’s Department of Anthropology and Jon Erlandson of the University of Oregon published a recent article in *Science* discussing how humans have substantially altered and in many ways enhanced marine ecosystems.

Together with a curator and an archaeologist from the National Museum of Korea, the Freer and Sackler Galleries’ Louise Cort and Keith Wilson reviewed the Freer’s Korean collections as a first step in a new collaborative project between the Galleries and the National Museum of Korea.

The catalogue from the Sackler Gallery exhibition *Garden and Cosmos: The Royal Paintings of Jodhpur* received the College Art Association’s 2010 Alfred Barr Award for museum scholarship.

National Museum of African Art research and collection strengths were highlighted in a number of publications, including “The Collection of the National Museum of African Art” by Bryna Freyer and Christine Mullen Kreamer in *Sculpture Review*.

Access

The *David H. Koch Hall of Human Origins* opened on March 17, 2010, to mark the 100th anniversary of the National Museum of Natural History’s building on the National Mall. The 15,000-square-foot exhibition examines how humans have evolved over the past 6 million years, addressing the profound question “what does it mean to be human?”
A *Human Origins* Web site was also launched, featuring an interactive timeline, a virtual excavation based on a Smithsonian site, high-resolution 3-D scans of fossils and artifacts, and a forum for teachers.

The *Hirshhorn Museum and Sculpture Garden* opened two new exhibitions:

- *ColorForms* (March 11, 2010–winter 2011) uses artworks from the Museum’s own collection, along with several paintings on loan from the National Gallery’s Mark Rothko holdings, to explore how color remains an essential tool for artists, regardless of medium.

- *Josef Albers: Innovation and Inspiration* (February 13–April 11, 2010) presented nearly 70 works spanning the 50-year career of the renowned American artist, drawing on the Museum’s collection of Alber’s works—the largest and most comprehensive in the world.

The Hirshhorn has also received extensive media attention (including front-page coverage in the *New York Times*) over its plan to open a Pavilion for International Cultural Dialogue in late 2011 or early 2012. The Pavilion, housed in a huge inflatable structure that will transform the Museum’s central plaza into an indoor public space, will serve as a new kind of public forum for discussions of key cultural issues of this era.

Two exhibitions opened in the *Arthur M. Sackler Gallery*:

- *Perspectives: Hai Bo* (March 27, 2010–February 27, 2011) explores resilience and isolation in rural China, as captured in five stunning, large-scale photographs of the artist’s home region.

- The paired exhibits *In the Realm of Buddha: The Tibetan Shrine from the Alice S. Kandell Collection* and *Lama, Patron, Artist: The Great Situ Panchen* (March 13–July 18, 2010) juxtapose a Tibetan Buddhist shrine featuring art from the 12th–19th centuries with a display of works by and about Situ Panchen (1700–1774), an artist, teacher, and founder of the Palpung monastery.

The *Freer and Sackler Galleries* held the 14th annual Iranian Film Festival in January and February 2010—one of the Galleries’ most popular events and an institution among the local Iranian community.

*Smithsonian Folkways Recordings* was very much in the public eye:

- Folkways reached an agreement with the United Nations Education, Science, and Culture Organization (UNESCO) to add UNESCO’s world music ethnographic series, consisting of more than 120 albums from around the world, to the Folkways collections.

- The National Gallery of Art screened the Smithsonian Channel’s *Worlds of Sound: the Story of Folkways Records* at its Black Maria film festival event in early March 2010. The film also garnered honors at the Houston Film Festival.
• Folkways released *Classic Appalachian Blues*, a compilation with liner notes cowritten by the Folklife Archives’ Jeff Place; and Volumes 7, 8, and 9 of *Music of Central Asia*.

**Cooper-Hewitt, National Design Museum** opened two of its “Quicktake” installations showcasing up-and-coming design from around the world.

• **Quicktake: Tata Nano—The People’s Car** (February 18–April 25, 2010) featured the low-priced automobile that brings the dream of car ownership within the reach of many middle-class citizens of India.

• **Quicktake: Rodarte** (February 11–March 14, 2010) highlighted the fashion label founded in 2005 by sisters Kate and Laura Mulleavy and named a 2009 finalist in the National Design Awards.

**Broadening Access: Events and Outreach**

**Events**

The second quarter of fiscal year 2010 saw the celebration of two of the five Congressionally mandated Heritage Months, for which the Smithsonian Heritage Month Steering Committee, chaired by the **Smithsonian Center for Education and Museum Studies**, produces family day celebrations.

• In February 2010, the **National Museum of American History** hosted Black History Month Family Day for an audience of over 1,000.

• In March 2010, the **National Portrait Gallery** and **Smithsonian American Art Museum** celebrated Women’s History Month with a program of performances, workshops, hands-on art and stamp-collecting activities, and other offerings.

For the past five years, the **National Air and Space Museum** has held its own heritage family day series to celebrate the diversity that makes America great. The Museum celebrated African American Pioneers in Aviation History on February 20, 2010; Women in Aviation (at the Udvar-Hazy Center) on March 13, 2010; and Kites of Asia on March 20, 2010.

More than 5,000 people participated in events at the 44th annual Smithsonian Kite Festival sponsored by **The Smithsonian Associates**, and thousands more joined to watch and fly their own kites.

The **Smithsonian Institution Libraries** hosted a two-day symposium, “The Era of Experiments and the Age of Wonder: Scientific Expansion in the 17th–19th Centuries,” to mark the reopening of the Dibner Library of the History of Science and Technology.
In February 2010, the **Smithsonian Tropical Research Institute** launched celebrations of the 100th anniversary of the Smithsonian in Panama. In December 1910, nine prominent scientists working under the umbrella of the Institution undertook an environmental impact study of the Panama Canal Zone to document its flora and fauna.

### National and International Outreach

**Smithsonian Affiliations** offers museums, cultural institutions, and educational organizations access to the Institution’s collections and resources. As of March 2010, there were 166 Affiliates in 41 states, the District of Columbia, Panama, and Puerto Rico. In this quarter, Affiliations welcomed two new members (the Museum of History and Industry in Seattle, Washington, and the Heard Museum in Phoenix, Arizona), and 30 Smithsonian collections objects were loaned to Affiliate organizations.

The **Smithsonian Institution Traveling Exhibition Service (SITES)** continued to sustain a high level of outreach activity:

- In the second quarter of fiscal year 2010, SITES circulated 42 exhibitions to 69 venues in 29 states, the District of Columbia, and Guam, where they were viewed by about 1.5 million visitors.
- SITES opened national tours of two exhibitions: *Elvis at 21* at the Grammy Museum in Los Angeles, California, and *IndiVisible: African-Native American Lives in the Americas* at the Broward County Library in Fort Lauderdale, Florida.
- SITES completed beta testing for the launch of *Green Revolution*, its first-ever “zero carbon footprint exhibition.” This innovative new initiative involves licensing exhibition design files to exhibitors, enabling multiple host venues to create their own shows.

The **National Science Resources Center (NSRC)** remains active in promoting reform in the science curriculum across the nation’s schools and beyond:

- The 2010 NSRC National Science Education Leadership Development Forum was held in Philadelphia, Pennsylvania; 90 government, business, education, and non-profit leaders from 13 states and Mexico attended.
- NSRC staff participated in the “International Workshop on the Transition of Inquiry-Based Science Education from Primary to Secondary School,” hosted by the University of Chile.
- NSRC hosted science educators from Central and South Asia who were traveling in the United States through the World Learning program of the U.S. Department of State.
- Staff participated in a Department of State roundtable discussion with visiting science educators from the Near East and North Africa, and later hosted several individuals from the delegation in the NSRC offices to further discuss its programs with them.

The **Smithsonian Associates** presented 38 programs related to the Grand Challenge of Understanding the American Experience, 34 programs connected to Valuing World Cultures, and four devoted to the theme of Understanding and Sustaining a Biodiverse Planet.

**Center for Folklife and Cultural Heritage** Director of Cultural Heritage Policy James Early carried out a weeklong speaking tour of museums in Peru in collaboration with the U.S. embassy.
Strengthening Collections

First Lady Michelle Obama presented the gown she wore to the 2009 inaugural balls to the Smithsonian's First Ladies collection on March 9, 2010, in a ceremony at the National Museum of American History attended by the gown's designer, Jason Wu. Bill Moggridge, a National Design Award winner for Lifetime Achievement and the new Director of Cooper-Hewitt, National Design Museum, donated his 1981 prototype for the Grid Compass computer—the world's first laptop computer—to the Museum's collection.

The Museum Conservation Institute instituted an umbrella research theme called “Healthy Environments, Healthy Practices, and Healthy Collections.” It focuses on:

- Reducing the energy requirements and costs of maintaining the museum environments (temperature, humidity, and light) essential for protecting and conserving collections;
- Developing (or identifying) conservation protocols, procedures, and products that are as safe as possible for staff, collections, and the global environment; and
- Measuring the impact of these programs and projects.

The famous Wittelsbach-Graff Diamond, on loan from Lawrence Graff, is on public display for the first time in 50 years, alongside the Hope Diamond at the National Museum of Natural History (January 28–August 1, 2010). The Hope and Wittelsbach diamonds were long rumored to have come from the same crystal. In January 2010, however, Museum scientists carefully analyzed both gems and concluded this was unlikely.

The National Museum of African American History and Culture acquired two color lithographs by famed artist Romare Bearden.

The National Museum of the American Indian and the National Museum of Natural History have worked for over two years to prepare a loan of 585 objects to the Smithsonian Arctic Studies Center at the Anchorage Museum in Alaska, with the aim of increasing Alaskans' access to Smithsonian collections.

To verify the authenticity of a “printed slave dress” in mint condition acquired by the National Museum of African American History and Culture, researchers from the Museum Conservation Institute used non-destructive techniques to analyze individual dress threads. Their findings were consistent with a pre-1865 date of manufacture and suggest the dress deserves a place in the Museum's collection.

The Hirshhorn Museum and Sculpture Garden and the Lunder Conservation Center of the Smithsonian American Art Museum and National Portrait Gallery sponsored Collaborations in
Conserving Time-Based Art, a three-day colloquium that brought together Smithsonian and external specialists to discuss the needs of art works in media such as film, video, and digital software.

On February 4, 2010, the National Zoological Park’s beloved 4½-year-old giant panda, Tai Shan, was sent to Chengdu, China. Under the Zoo’s agreement with the China Wildlife Conservation Association, Tai Shan was transferred to China to take part in a panda breeding program.

The second quarter of fiscal year 2010 saw a baby boom of rare and endangered species offspring at the National Zoological Park. New offspring include strawberry dart frogs, maned wolves, clouded leopards, Andean bears, and a brown kiwi.

A brown kiwi chick, clouded leopard cubs, and Andean bear cubs were welcome arrivals at the Zoo.

Organizational Excellence

Leadership Milestones

Claudine K. Brown was named to the new position of Director of Education, and will begin on June 20, 2010. She will be responsible for defining the Institution’s education strategy; developing K–12 education offerings; overseeing the National Science Resources Center and Smithsonian Center for Education and Museum Studies; and coordinating the efforts of unit-based education offices. Brown previously worked at the Institution in the early 1990s as Director of the National African-American Museum Project and Deputy Assistant Secretary for the Arts and Humanities. Since 1995, she has served as Director of the Arts and Culture Program at the Nathan Cummings Foundation.

Daniel Sheehy was named Director of the Center for Folklife and Cultural Heritage, after having served as Acting Director of the Center since April 2009 and Director and Curator of Smithsonian Folkways Recordings since 2000. Prior to joining Folklife, Sheehy served as Director of Folk and Traditional Arts at the National Endowment for the Arts.
Major Construction, Renovation, and Facilities Projects

**National Museum of African American History and Culture**

$500 million total estimated project cost

Work on the second phase of an environmental impact statement (EIS) for the new Museum continues, with a public hearing on the draft EIS anticipated in summer 2010. Monthly meetings with historic resources consulting parties also continue. In April 2010, the architectural team of Freelon Adjaye Bond/SmithGroup shared design alternatives with the Commission of Fine Arts and the National Park Service, whose comments will inform a concept design to be presented in June/July 2010. A request for qualifications for construction management services will be issued in summer 2010, with the goal of opening the Museum in late 2015. Total project costs are $250 million in Federal capital funds and $250 million in non-Federal capital funds.

**Arts and Industries Building (AIB)**

$64 million estimated cost for shell only

Construction documents for roof reconstruction, window replacement, and structural upgrades are on schedule, and work on these major improvements will begin in fall 2010. The design of the building core is in the scope development phase. Exterior masonry repair/cleaning and selective interior demolition and hazmat removal (funded by the American Recovery and Reinvestment Act) will be completed in spring 2010. The interior work has begun to restore the original character of the building, including open views that had been obscured for nearly 100 years. Exploration of program possibilities for the building is under way. A strategy for a public opening in fiscal year 2015 has been developed, and is achievable if goals for corporate and private fundraising are met and adequate resources are allocated within the facilities capital plan.

**National Museum of American History, Kenneth E. Behring Center**

Revitalization of west wing public space, package III: $60 million total project cost

The focus of the third phase of renovation is renewal and modernization of three public space floors in the west wing. Data gathering and field surveys on existing conditions have been completed; the schematic design phase is progressing and is expected to be completed by summer 2010. The Federal appropriation for design ($6 million) was received in fiscal years 2009 and 2010. Additional Federal funding ($54 million) has been requested for fiscal years 2011–2013.

**Donald W. Reynolds Center for American Art and Portraiture**

$19.5 million total estimated project cost

The Smithsonian will complete the renovation of the Reynolds Center with the reconstruction of the F Street stairs and the addition of landscaping and security. Fiscal year 2016 estimates for the associated costs are $9.5 million in Federal funds and $10.0 million in Trust funds.
**National Zoological Park, Asia Trail II: Elephant Trails**

$52.4 million estimated total project and program cost

The second phase of the Asia Trail project will renovate the elephant house and enlarge yard space at a projected cost of $52.4 million—$37.6 million Federal (received in fiscal years 2006–2010) and $14.8 million Trust. Construction began in March 2008 and was initially scheduled for completion in April 2011. However, while the elephant barn and outdoor habitat are substantially complete, remaining work on the “elephant community center” has been removed from the original contract, due to less-than-satisfactory performance. A new contractor is preparing a proposal to complete the project, and renovation of the “community center” will commence in late summer, with completion expected in spring 2012. The elephants will be moved into their new holding area early this summer.

**National Zoological Park, General Services Building**

$28.4 million total estimated project cost

Design continues for structural repairs, fire-protection improvements, and safety upgrades at the Zoo’s General Services Building, which houses vital functions that must remain operational throughout construction. The phased project will entail permanent relocation of the Institution’s vehicle maintenance branch to Suitland, Maryland, and temporary relocation of other functions to swing space. The construction authorization request for the new vehicle maintenance facility in Suitland was approved by the House and is currently under review by the Senate. A contract for construction of this facility was awarded in January 2010, using fiscal year 2010 funds. Design for General Services Building upgrades and the associated North Road retaining wall will be complete by summer 2011, with construction expected to begin in 2012. Federal funding has been requested for fiscal years 2012–2014.

**National Zoological Park, Seal / Sea Lion Exhibit**

$40.0 million total estimated project cost

The Zoo’s seal/sea lion exhibit is being revitalized to meet current standards for animal care and to improve accessibility. The project includes an upgrade of underground utilities in Beaver Valley. A construction contract was awarded in September 2009. Demolition is almost complete and utility work has begun at the lower end of the site. Construction is expected to begin in summer 2010. The non-capital, interpretive component of the project will be funded with $1 million in Trust funds, while the Federal capital contribution is approximately $39 million, with multi-year funding in fiscal years 2009–2012.

**National Air and Space Museum—Steven F. Udvar-Hazy Center, Phase II**

$81.8 million total project cost

Phase II of the Udvar-Hazy Center, now under construction, will add 237,000 square feet of collections care space to the current facility. Construction should be complete in December 2010, with fit-out of the storage, processing, and archives spaces subject to the receipt of Federal funding. Total project costs include $68.7 million in Trust funds and $13.1 million in Federal funds.
Cooper-Hewitt, National Design Museum

$53.5 million total estimated project cost
A contract for the renovation of the Fox-Miller townhouses was awarded in January 2010, and construction began in February 2010. Design for the Carnegie Mansion renovation is scheduled for completion in September 2010, with a construction contract expected to be awarded in April 2011 and construction expected to begin in July 2011. Total project costs include $21 million in Federal funds and $32.5 million in private funding. Federal funds included pre-fiscal year 2009 awards of $2.9 million for design and collections storage, $1.7 million in fiscal year 2009 funds for the Fox-Miller work, and the balance for Mansion construction in fiscal years 2011–2013. Of the required private funds, over $28.5 million (nearly 90 percent) has been identified in gifts and pledges.

Smithsonian Environmental Research Center, Mathias Replacement Laboratory Project

$44.5 million total estimated project cost
The Smithsonian Environmental Research Center is eliminating trailers that now house 25 percent of lab space and 65 percent of office space; renovating and reconfiguring the existing Mathias Lab; and creating replacement labs to meet national standards. The 85,000-square-foot project employs sustainable technologies and building materials that will yield substantial reductions in energy and maintenance costs. Schematic design was completed in September 2009, with final design completion scheduled for mid-2010. Construction is scheduled to commence in early 2011 and to be completed in 2013.

National Museum of Natural History, Main Building Ground Floor and Mezzanine

$18.5 million total project cost
The entire north ground floor of the main Natural History Building is slated for renovation. The 15,500-square-foot west end of the floor will become a new learning center, and the 27,600-square-foot east end will house an expanded Smithsonian Early Enrichment Center, renovated Smithsonian Institution Libraries facilities, an improved paleobiology high bay laboratory, and consolidated facility support operations. Design for this Federally funded project will be complete in May 2010, and an award for construction is anticipated by the end of this fiscal year.

Smithsonian Tropical Research Institute, Gamboa Laboratory Facilities

$19.1 million total estimated project cost
With the acquisition of 172.5 acres in Gamboa in 2007, the Smithsonian Tropical Research Institute is proceeding with replacement of outdated facilities. A new terrestrial science lab facility on the site will be funded with $15.67 million in Federal and $3.46 million in Trust funds. Programming and design are under way, with the first construction procurement actions scheduled for late fiscal year 2010.

Museum Support Center of the National Museum of Natural History, Pod 3

$42.6 million total estimated project cost
The renovated Pod 3 in Suitland, Maryland, substantially completed in February 2010, will provide consolidated storage space for frozen, refrigerated, gas-preserved, and dry collections, allowing the Smithsonian to vacate leased properties and freeing up congested space in several museums. Over
$15 million of shelving/racking, cases, and freezers are now being installed. Transfers of collections from four museums are to begin in June 2010, and will take two years and cost almost $5 million to complete.

**Permanent Physical Security Barriers**

$55 million total project cost

Construction of security barriers at the National Air and Space Museum is complete. The first phase of barrier construction at the National Museum of Natural History has also been finished, and a contract for the final phase was recently awarded. Barriers are now in place on three sides of the National Museum of American History, and all construction should be completed there by early summer 2010. Construction of security barriers for the Castle and Quadrangle is programmed to start in fiscal year 2014. Design and construction of off-Mall barriers will follow in order of priority.

**American Recovery and Reinvestment Act of 2009 Projects**

$25.0 million total project cost

The American Recovery and Reinvestment Act, signed on February 17, 2009, provided $25 million for repair and revitalization projects not covered by fiscal year 2009 funding, most involving safety/code compliance or sustainability and energy efficiency. By the end of March 2010, all 23 project contract actions, totaling $22.6 million, were under contract, with the residual $2.4 million held for contingencies and management. All construction should be finished by the end of 2010. In compliance with the Act, the Smithsonian is reporting on jobs created and expenditure of funds; the third quarterly report was completed at the end of April 2010.

**Sustainability**

Around the Smithsonian, work continues on multiple projects aiming to achieve Leadership in Energy and Environmental Design (LEED) certifications, in areas including geothermal heating and cooling, cool building analysis, use of “green roofs” and photo-voltaic cells, solar panel water heating, and water reclamation.

In response to Executive Order 13514 (Federal Leadership in Environmental, Energy and Economic Performance), the Smithsonian set a fiscal year 2020 target to reduce certain greenhouse gas emissions by 32 percent relative to fiscal year 2008 levels (including both direct emissions from buildings and vehicles and indirect emissions from purchased energy). The plan calls for reducing energy use by 10–47 percent at eight major facilities where conservation opportunities are greatest. Estimated required investment is $47 million, a portion of which can be contractor-financed.

Also in response to the Executive Order, two Smithsonian Strategic Sustainability Plan workshops were held to kick off an Institution-wide effort focused on greenhouse gas emission reductions, sustainable acquisition, electronics stewardship, and Smithsonian-specific innovations. The plan is expected to be delivered by the June 2010 deadline specified in the Order.
Information Technology

The second quarter of fiscal year 2010 saw several notable developments at the Office of the Chief Information Officer (OCIO):

- OCIO began to execute the Smithsonian’s Digitization Strategic Plan, launching a first wave of action-item teams to work on (1) a methodology to count what has been digitized and how many digital assets exist; (2) selection and prioritization criteria for digitization; (3) digital asset retention and life cycle management processes; (4) a conceptual data model that describes the information stored around each digital asset; (5) rights, restrictions, and security requirements for digital assets; (6) technical standards and best practices; and (7) defining Centers of Expertise (in areas such as audio, video, 3-D images, and so on) to digitize collections in-house and advise on best practices for both in-house and outsourced efforts. Teams are comprised of pan-Institutional representatives and operate under the auspices of the Digitization Program Advisory Council.

- A Smithsonian Commons prototype was developed to demonstrate how an integrated, pan-Institutional Web experience might look and function. The Smithsonian Commons will be a special part of the Institution’s digital presence on both the Web and new media platforms (such as smart phones) dedicated to freely sharing of Smithsonian resources. The concept was initially brought to light through last year’s Web and new media strategic planning processes as a way to share Smithsonian assets with the world in a participatory manner.

- The annual update of the Smithsonian’s Information Technology Plan Strategic Overview, aligned with the Smithsonian’s new strategic plan, was released.

- OCIO completed an upgrade of the Smithsonian Tropical Research Institute domain name system (DNS). It now uses the same platform as the Smithsonian’s Washington, D.C., facilities, which will improve OCIO’s ability to provide maintenance and support. (DNS is the system that converts user-friendly named addresses into numeric IP addresses necessary for communication across computer networks.)

In March 2010, the National Air and Space Museum launched the first mobile Web site at the Smithsonian. Through this site, which is specifically formatted for mobile devices, visitors carrying Web-enabled smartphones can access information about the Museum and find objects on display.