



Smithsonian



*Scores of people, including President Barack Obama, gathered on the National Mall on February 22, 2012, to celebrate the historic groundbreaking for the National Museum of African American History and Culture. Pictured, from left to right, are Museum Council Cochair Richard D. Parsons, Board Vice Chair Patricia Q. Stonesifer, former First Lady Laura Bush, Smithsonian Secretary G. Wayne Clough, Museum Director Lonnie Bunch; Under Secretary for History, Art, and Culture Richard Kurin, Board Chair France Córdova, and Museum Council Cochair Linda Johnson Rice.*

## Report to the Regents Second Quarter, Fiscal Year 2012

# Broadening Access: Visitation Summary



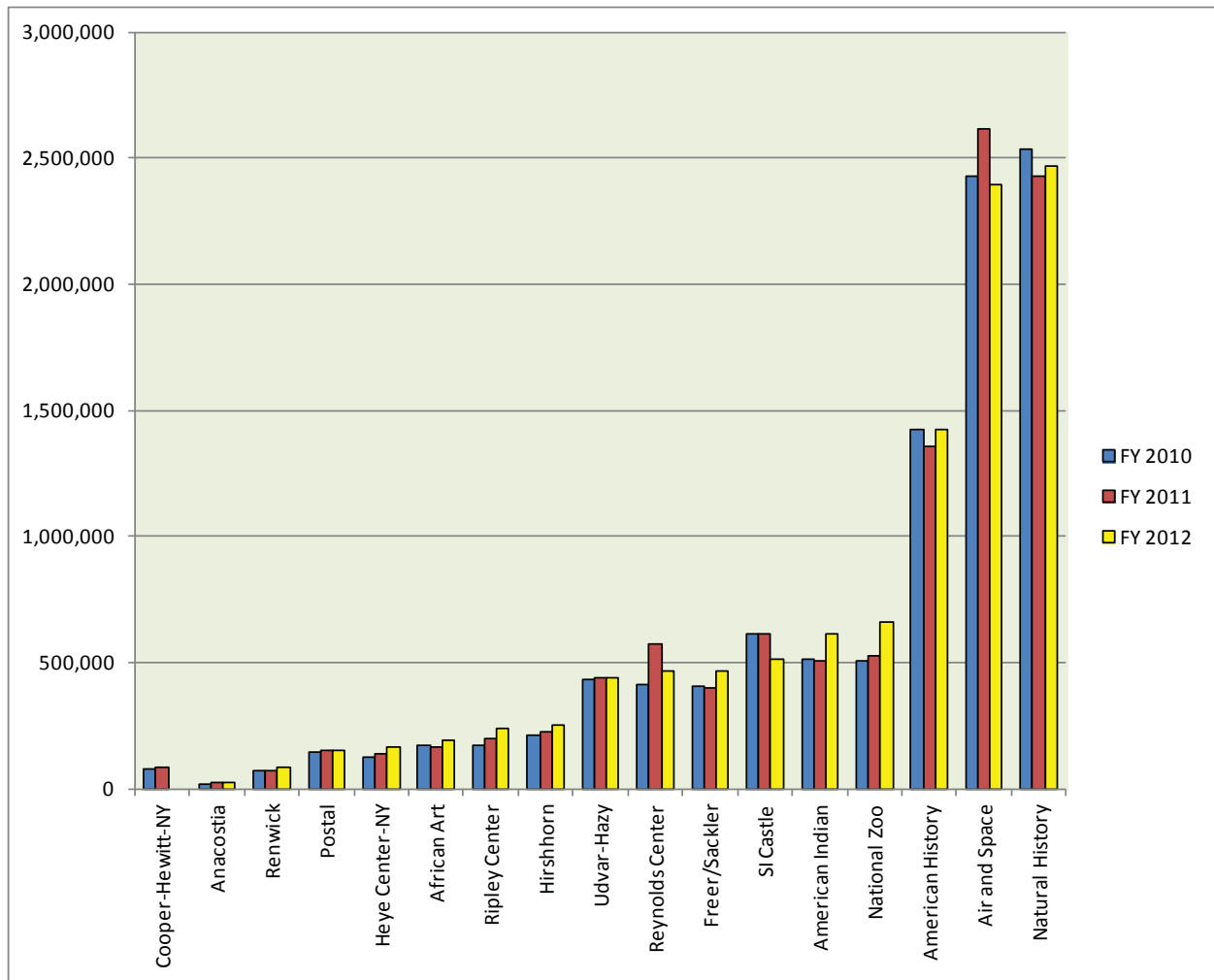
The Smithsonian Institution Traveling Exhibition Service's *Jim Henson's Fantastic World* at the Museum of the Moving Image

Through the second quarter of fiscal year 2012, the Smithsonian counted approximately 10.6 million visits to its museums and exhibition venues in Washington, D.C., and New York, plus the National Zoological Park and Steven F. Udvar-Hazy Center. This was similar to the figure for the first two quarters of fiscal year 2011.

The Smithsonian also counted about 40 million unique visitors to its websites and approximately 2 million visitors to traveling exhibitions mounted by the Smithsonian Institution Traveling Exhibition Service.

## Visits to Smithsonian Venues

First Two Quarters, Fiscal Years 2010, 2011, and 2012



# Grand Challenges Highlights

## Understanding and Sustaining a Biodiverse Planet

### *Research: Smithsonian Environmental Research Center (SERC)*



Blue crabs and endangered orchids are subjects of SERC research

In this quarter, SERC researchers published 26 papers in 20 peer-reviewed journals.

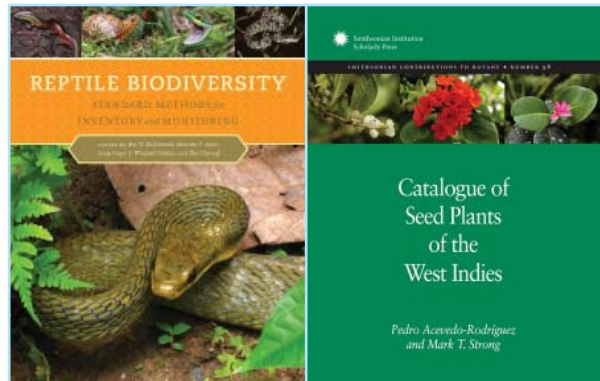
When it comes to conserving endangered orchids, not all forests are equal, because orchids need fungi to sustain them. In a *Molecular Ecology* paper, SERC's Melissa McCormick reported on results that indicated orchid seeds germinate only where the fungi they need are abundant, and that the required fungi prefer older forests.

This implies that to save endangered orchids, planting new forests may not be enough; if the forests are not old enough or do not have the right fungi, orchids may not return quickly, or perhaps at all.

SERC hosted a Chesapeake Bay science seminar with the National Oceanic and Atmospheric Administration (NOAA). SERC Ecologist Rob Aguilar outlined the threat of invasive blue catfish, SERC Director Tuck Hines explained the potential problems of an imbalance between female and male blue crabs, and other research organizations discussed their projects in the region. Maryland Senator Ben Cardin also voiced his support for the research.

### *Research: National Museum of Natural History (NMNH)*

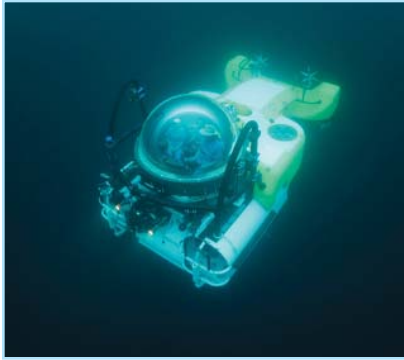
From tiny lizards to giant crocodiles, reptile populations everywhere are changing, yet decisions about their conservation are often based on inadequate data. *Reptile Biodiversity: Standard Methods for Inventory and Monitoring* (University of California Press), a new book coedited by Roy W. McDiarmid and Mercedes S. Foster (both of NMNH) and three colleagues, fills this gap with contributions from 70 specialists and a comprehensive guide to best practices for standardized surveys of these creatures.



*Catalogue of Seed Plants of the West Indies* (Smithsonian Contributions to Botany, 98), a new volume from the Smithsonian Institution Scholarly Press edited by NMNH's Pedro Acevedo-Rodríguez and Mark T. Strong, represents the first modern effort to catalog the scientific and vernacular names of seed plants from the Bahamas and the Greater and Lesser Antilles. It is accompanied by a searchable website.

NMNH Paleobiologist Hans Sues coauthored a study in the *Proceedings of the National Academy of Sciences*, reporting on the discovery in South Africa of a dinosaur nesting site from the Early Jurassic period that predates any previously known site by some 100 million years. The new find vastly extends our knowledge of the biology of dinosaurs from this era, and provides the first detailed look at dinosaur reproduction early in their evolutionary history.

In a paper published in the *Journal of Biogeography*, Seán G. Brady of the NMNH Entomology Department and his colleagues analyze the diversification and biogeography of pollinator bees. Their findings show ancient connections between South American and Australian bees, dating back to the Cretaceous and Eocene epochs, when Antarctica connected the two continents.



DeepSee

#### *Research: Smithsonian Tropical Research Institute (STRI)*

In this quarter, 88 new scientific publications were added to the STRI bibliography.

STRI Director Eldredge Bermingham and Staff Scientist Héctor Guzmán joined Mission Blue aboard the submersible DeepSee to survey the Hannibal Bank seamount, an undersea feature of Panama's Coiba National Park, at depths from 60 to 340 meters. Founded by oceanographer and environmentalist Sylvia Earle, Mission Blue seeks to identify aquatic "Hope Spots"—areas of great undersea biodiversity.

In a paper published online in the journal *Naturwissenschaften*, researchers at STRI and the University of Costa Rica asked why spiders do not stick to their own webs. Repeating previous but poorly documented studies with modern techniques, they discovered that spiders' legs are protected by a covering of branching hairs and a non-stick chemical coating, and that spiders carefully move their legs to minimize adhesive forces.

#### *Research: National Zoological Park (NZIP)*

#### *Smithsonian Conservation Biology Institute (SCBI)*



Kojo in surgery

As part of a study led by the Great Ape Heart Project, two NZIP male gorillas, Kwame and Kojo, had Implantable Loop Recorders (ILRs) implanted beneath the skin between their shoulders, where the devices will record electrocardiogram waves and provide data on heart rates, rhythms, and pulses. This will help veterinarians better detect and treat heart disease, which is the leading cause of death among male gorillas in human care.

As published in the *American Journal of Primatology*, a study of marmosets by researchers, including SCBI's Michael Power, indicates that obesity in these small monkeys begins early in life, and suggests that marmosets may be a helpful model for understanding human childhood obesity. Unlike most animals, which are born with little fat, normal marmoset and human babies are quite fat at birth. Studies like this could help identify indicators of vulnerability to obesity in small children.

### *Broadening Access*

In 2009, the **Smithsonian Tropical Research Institute's** Carlos Jaramillo and his team discovered a trove of amazing fossils from the first South American rainforests 60 million years ago, including fossils of the titanoboa—the largest snake ever. In this quarter, the titanoboa story reached the public in a big way:

- The **Smithsonian Institution Traveling Exhibition Service** exhibit *Titanoboa: Monster Snake*, had a media preview at Grand Central Station in New York City before opening at the **National Museum of Natural History** (March 30, 2012–January 6, 2013). It features a full-scale model of this giant prehistoric serpent.
- The Smithsonian Channel documentary film *Titanoboa: Monster Snake*, which tells the story of Jaramillo's spectacular find, premiered at the **National Museum of Natural History**. In conjunction with the film's release, the Smithsonian's newsdesk.edu received over 400 information requests, primarily from the press, as well as an unprecedented 56,000 unique page views on its news site and 10,000 unique page views on the Smithsonian Science site.

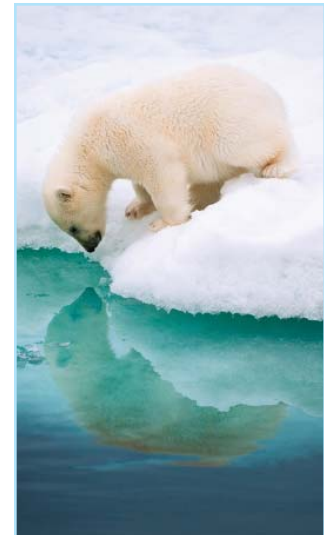
The **Smithsonian Conservation Biology Institute's** Tiger Conservation Partnership led a regional "Smart Patrol" training course for frontline staff from tiger reserves in Bangladesh, Bhutan, India, Nepal, China, and Russia. Participants were taught strategies to combat poaching and address other threats to tigers. Senior officials from the Smithsonian, Government of Nepal, World Bank, and other partners participated in the opening of the course at Chitwan National Park in Nepal.

Two visually arresting exhibitions went on display at the **National Museum of Natural History**:

- *X-Ray Vision: Fish Inside Out*, an exhibition developed by the **Smithsonian Institution Traveling Exhibition Service**, opened in the Museum's *Sant Ocean Hall* Focus Gallery (February 4–August 5, 2012). It highlights research conducted by Smithsonian scientists and radiographic images of specimens from the Museum's fish collection.
- The 2012 *Nature's Best Photography* exhibition of winners of the Windland Smith Rice International Awards went on display (March 30, 2012–January 6, 2013). The stunning collection of 48 large-format prints showcased here was selected from more than 20,000 submitted images.



The Titanoboa comes to Grand Central Station



Images from *Nature's Best Photography* (top) and *X-Ray Vision* (bottom)

This quarter marked important developments for the Biodiversity Heritage Library (BHL), an open-access digitization consortium including the **Smithsonian Institution Libraries (SIL)**.

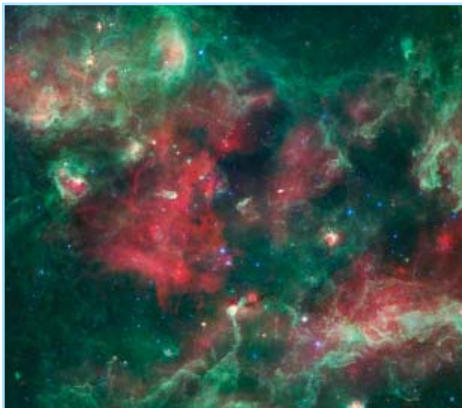
- SIL Director Nancy E. Gwinn and Associate Director for Digital Services Martin R. Kalfatovic were appointed Chair of the BHL Steering Committee and BHL Program Director, respectively.
- BHL was named one of the Best Free Online Reference Resources of 2011 by *Library Journal*, and it launched eight collections of selected content on iTunes U.

The **Smithsonian Environmental Research Center** launched NEMESIS (the National Exotic Marine and Estuarine Species Information System), an online public database that tracks roughly 500 marine invaders around the country, providing information on how, when, and where the invasions occurred, and what is known about their impacts.

The **Consortium for Understanding and Sustaining a Biodiverse Planet** presented a symposium, “Perspectives on Limits to Growth: Challenges to Building a Sustainable Planet,” to mark the 40th anniversary of the landmark report *Limits to Growth*, published by the symposium’s cosponsor, the Club of Rome.

The **Smithsonian Tropical Research Institute** plays an important role in training the next generation of tropical biologists. In this quarter, it brought students and faculty from Northeastern University, Princeton University, McGill University, Madison University, St. Norbert College, Harvard University, Ohio State University, and the University of Wisconsin to Panama.

## Unlocking the Mysteries of the Universe



The star-forming region in Cygnus



The South Pole Telescope

### *Research: Smithsonian Astrophysical Observatory (SAO) Harvard-Smithsonian Center for Astrophysics (CfA)*

In this quarter, SAO scientists’ research appeared in 136 peer-reviewed papers and 108 non-peer-reviewed papers at conferences and other venues. Among the scientific journals carrying SAO research results were the leading journals *Nature* (five articles) and *Science* (two articles).

SAO astronomers completed an infrared survey of star formation in the Cygnus OB2 super cluster, one of the largest and most active giant molecular cloud complexes in our galaxy. The team used the infrared camera on the SAO-led Spitzer Space Telescope, which allowed it to peer inside the opaque clouds of dust and gas to identify more than a thousand young stars in the earliest stages of formation.

The 10-meter South Pole Telescope (SPT) obtained new support for the most widely accepted explanation of “dark energy”—the mysterious force responsible for the accelerating expansion of the universe. SAO astronomers report that recent SPT results support Einstein’s model of dark energy and the so-called “cosmological constant.” The SPT operates at millimeter and submillimeter wavelengths, and is situated at the South Pole because of the transparent atmosphere there.

Black holes are irresistible sinks for matter and energy. They are commonly ringed by disks of matter, and if material from a nearby star falls onto the disk, X-rays and powerful jets of charged particles can be ejected. CfA astronomers have now found convincing direct evidence that these jets are driven by the spin of the black hole.

Construction workers have begun to blast three million cubic feet of rock from a mountaintop in the Chilean Andes to make room for SAO's highest long-term research priority: the Giant Magellan Telescope, which at 25 meters in diameter will be the world's largest telescope when completed near the end of this decade.



Clearing the site of the Giant Magellan Telescope

Among CfA highlights this year are a number of extrasolar planet discoveries, including:

- A Sun-like star with three sub-Neptune-size planets and two Earth-size candidates;
- A planet around a Sun-like star within the habitable zone (the distance from a star where temperatures allow water to take liquid form);
- A planet enshrouded by a thick, steamy atmosphere of water;
- A small star with a hot, Jupiter-like planet in an inner orbit and another in an outer orbit;
- Two new circumbinary planetary systems (planets that orbit two stars rather than one);

CfA researchers are also investigating the possibility that some planets have escaped their star's gravity and been ejected into space, occasionally to be captured by another stellar system.

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

CEPS scientists authored or coauthored 33 abstracts for the 43rd Lunar and Planetary Science Conference in March 2012—the largest and most important planetary science meeting held annually.

CEPS Chair Tom Watters was the lead author of a paper in *Nature Geoscience* that reports the discovery,



Wernher von Braun

made using high-resolution images from NASA's Lunar Reconnaissance Orbiter, of tectonic landforms on the moon that indicate the lunar crust has expanded in some locations. The story attracted a lot of media attention, with 82 stories appearing in various media outlets in the week after the article's publication.

### *Broadening Access*

National Air and Space Museum Curator Michael Neufeld's definitive, awarding-winning biography of rocket science pioneer Wernher von Braun, *Von Braun: Dreamer of Space/Engineer of War*, was published in its third foreign language; it is now available in Danish, German, and Polish. In this quarter, Neufeld spoke at three events in Germany and Austria to mark the 100th anniversary of von Braun's birth.

Research results from the **Smithsonian Astrophysical Observatory (SAO)** were featured in two *New York Times* news articles this quarter, and the SAO-administered Astrophysics Data System website, which provides open access to the astronomy and astrophysics literature, had over 330 million hits.

## Understanding the American Experience

### *Research*

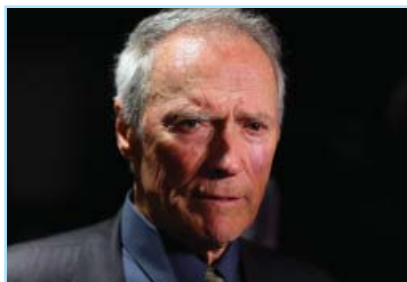
*East-West Interchanges in American Art: A Long and Tumultuous Relationship*, a volume of conference proceedings edited by Lee Glazer of the **Freer and Sackler Galleries** and Cynthia Mills and Amelia Goerlitz, both of the **Smithsonian American Art Museum**, was published by the **Smithsonian Institution Scholarly Press**.



President Obama spoke at the groundbreaking ceremony for the National Museum of African American History and Culture

### *Broadening Access*

In a moving ceremony on the National Mall on February 22, the Smithsonian broke ground for its 19th museum, the **National Museum of African American History and Culture**. President Barack Obama was among the speakers, and other honored guests included First Lady Michelle Obama, former First Lady Laura Bush, U.S. Representative John Lewis, and Kansas Governor Sam Brownback. The ceremony took place on the Museum's five-acre site adjacent to the Washington Monument.



Clint Eastwood

At a ceremony marking the opening of the Warner Bros. Theater at the **National Museum of American History**, the Smithsonian presented Clint Eastwood with the James Smithson Bicentennial Medal in honor of his contributions to the American experience in six decades as an award-winning film actor and director.

The **National Museum of African American History and Culture** partnered with Monticello to unveil *Slavery at Jefferson's Monticello: Paradox of Liberty* (January 27–October 14, 2012) at the **National Museum of American History**, an exhibition that introduces visitors to six slave families on Jefferson's plantation.

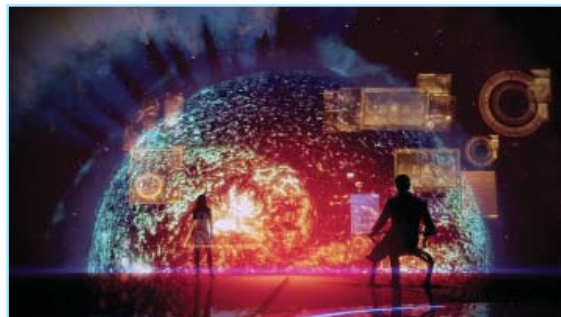
To commemorate the signing of Executive Order 9066 that decreed the internment of Japanese Americans during World War II, the **Asian Pacific American Program** hosted a panel discussion at the **National Museum of American History** with keynote speaker General Eric Shinseki, Secretary of Veterans Affairs.



*The Jazz Times* added **Smithsonian Folkways’ Jazz: The Smithsonian Anthology** to its 10 Best Historical Releases list. Susan Rice, U.S. Ambassador to the United Nations, selected the *Anthology* as her symbolic gift to the other members of the Security Council; by tradition, new Council presidents present an item representative of their country to the other members.

Two highly-anticipated exhibitions opened at the **Smithsonian American Art Museum**:

- The opening of *The Art of Video Games* (March 16–September 30, 2012) coincided with “GameFest,” one of the Museum’s most ambitious series of public programs for an exhibition, consisting of three days of talks, panel discussions, movies, game playing, music, and more.
- *Annie Leibovitz: Pilgrimage* (January 20–May 20, 2012) featured a new body of work by one of America’s best-known living photographers. During its opening week, the artist gave a talk and attended a public reception promoting her *Pilgrimage* book.



*The Art of Video Games*



Artwork from *Fly Marines!*



Jackson Pollock

The opening of the exhibition *Fly Marines! The Centennial of Marine Corps Aviation: 1912–2012* (January 14, 2012–January 6, 2013) kicked off the **National Air and Space Museum’s** year-long observance of the first century of Marine Corps aviation. The exhibition features 91 works of art from the National Museum of the Marine Corps, most of which were created in combat situations.

On Presidents’ Day, the **National Museum of American History** presented a preview of segments from the PBS film *Clinton*, the 16th episode in the American Experience Presidential Biography Series, to a full house in the new Warner Brothers Theater. The screening was followed by a panel discussion, led by Acting Director Marc Pachter, with the film’s director Barak Goodman, Clinton advisor Don Baer, Clinton White House Deputy Chief of Staff Harold Ickes, and *Politico* Editor-in-Chief John Harris.

The **Archives of American Art** exhibition *Memories Arrested in Space: A Centennial Tribute to Jackson Pollock* went on display in the Lawrence A. Fleischman Gallery at the Reynolds Center (January 28–June 4, 2012) to celebrate the 100th anniversary of Pollock’s birthday. It presents Pollock’s enduring legacy through family photographs, correspondence, rare printed material, and writings.

The International Association of Art Critics awarded the **National Portrait Gallery** exhibition *Hide/Seek: Difference and Desire in American Portraiture* its prize for best national thematic show. The *Hide/Seek* catalogue also received an award in the 2012 Stonewall Book Awards of the American Library Association, while the catalogue for the Gallery’s exhibition *Seeing Gertrude Stein: Five Stories* was a runner-up.

Several exhibitions and installations opened at the **National Portrait Gallery**:

- *In Vibrant Color: Celebrity Portraits from the Harry Warnecke Studio* (March 2–September 9, 2012) features the work of a pioneering photographer who created richly-hued portraits for the *New York Daily News*' Sunday magazine long before color reproductions became commonplace.
- *The Confederate Sketches of Adalbert Volk* (March 30–January 20, 2012) and *Mathew Brady's Photographs of Union Generals* (March 30, 2012–May 31, 2015), the latest in a series of installations to mark the 150th anniversary of the Civil War, went on view.
- *Juliette Gordon Low and the 100th Anniversary of Girl Scouts* (January 13, 2012–May 2013) commemorates the founder of the Girl Scouts.
- *A Will of Their Own: Judith Sargent Murray and Women of Achievement in the Early Republic* (April 20, 2012–September 2, 2013) tells the story of eight remarkable women from the early days of the United States; it is on view within the permanent exhibition *American Origins*.
- In the permanent *The Struggle for Justice* gallery, the Gallery installed two photographs of Fred Korematsu, who initiated a legal challenge to, and eventually prevailed against, the U.S. Government's mass internment of Japanese Americans during World War II.



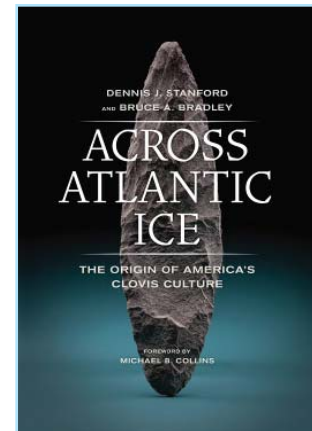
Orson Welles, from the Harry Warnecke Studio

The **Anacostia Community Museum** hosted its 27th Annual Martin Luther King Jr. Program in the Baird Auditorium of the **National Museum of Natural History**. Harry E. Johnson Sr., President and CEO of the Martin Luther King Jr. National Memorial Project Foundation, was the featured speaker.

## Valuing World Cultures

### *Research*

Who were the first humans in North America? According to a now-familiar story, hunters of the Clovis culture came to the continent about 12,000 years ago via a land bridge across the Bering Sea. In their new book *Across Atlantic Ice: The Origins of America's Clovis Culture*, Dennis J. Stanford of the **National Museum of Natural History** and Bruce A. Bradley challenge this narrative, suggesting that the first Americans crossed the Atlantic by boat and arrived earlier than previously thought.



Peruvians were eating popcorn 2,000 years earlier than hitherto believed, according to a paper in *Proceedings of the National Academy of Sciences* coauthored by Dolores Piperno, Curator of Archaeology at the **National Museum of Natural History** and Emeritus Staff Scientist at the **Smithsonian Tropical Research Institute**. Piperno unearthed some of the oldest known corncobs, dating from 6,700 to 3,000 years ago, at two sites on Peru's northern coast.

Christine Mullen Kreamer of the **National Museum of African Art** was one of six scholars invited by the National Museum of Ethnology, Osaka, to present a paper at the conference "Exhibiting Africa: Contemporary Perspectives on the Representation of Cultures in Museums."

A **Smithsonian Folkways Recordings** research team traveled to Ciudad Bolivar, Venezuela, to record the iconic Venezuelan folk music group Serenata Guayanesa, which recently celebrated its 40th anniversary and was declared a national treasure by the Venezuelan legislature.

The **Freer and Sackler Galleries** hosted a two-day workshop on the art and archeology of Samarra, Iraq, for international scholars and museum personnel. The goal was to define a collaborative research project that draws on archival materials held by the Galleries and site materials held in various museums around the world.

### *Broadening Access*

The **National Museum of the American Indian** offered a number of exhibitions, festivals, and displays:

- Northwest Coast Native artist David Boxley spent a week carving a totem pole in the Potomac Atrium for permanent installation at the Museum. It is 22 feet long and carved from a red cedar log weighing 3,000 pounds. An article on it appeared on the front page of the *Washington Post*.
- The Vochol—a Volkswagen Beetle covered with over two million glass beads—was on display. It took eight Wixaritari artists more than 9,000 hours to decorate the car.
- The popular annual “Power of Chocolate” festival featured food, hands-on activities, dance performances, and family activities, plus a presentation by Catherine Kwik-Urbe of Mars Botanical on the health benefits of chocolate.
- The exhibition *Behind the Scenes: The Real Story of the Quileute Wolves* (January 13–May 9, 2012) brought together rare works of Quileute art, along with historic drawings created by Quileute youth who attended the Quileute Day School at Mora, Washington, from 1905 through 1908.

Several exhibitions opened at the **Arthur M. Sackler Gallery**:

- *Hokusai: 36 Views of Mount Fuji* (March 24–June 17, 2012) featured works from the most acclaimed print series by Japan’s most famous artist, Katsushika Hokusai (1760–1849), including *Under the Wave off Kanagawa* (better known as *The Great Wave*).
- *Masters of Mercy: Buddha’s Amazing Disciples* (March 10–July 8, 2012) features works from Kano Kazunobu (1816–1863) that depict miraculous activities of the 500 disciples of the Buddha. These are regarded as some of the most impressive works of Buddhist iconography from the Edo period (1615–1868).
- Two smaller installations went on display. *Goryeo Buddhist Paintings: A Closer Look* (February 25–May 28, 2012) presents three icons from the Galleries’ collections that had never before been displayed together. The new permanent display *Feast Your Eyes: A Taste for Luxury in Ancient Iran* offers visitors a look at the Galleries’ fine collection of Iranian metalwork.



David Boxley at work



The Vochol



*The Great Wave*



*IndiVisible*

The **George Gustav Heye Center of the National Museum of the American Indian** opened the exhibition *IndiVisible: African-Native American Lives in the Americas* (February 9–August 31, 2012). The exhibition was previously on display at the Museum’s facility on the National Mall.

Releases from **Smithsonian Folkways** garnered 14 nominations for the 2012 Independent Music Awards in a wide variety of genres and categories.

The exhibition *The Beautiful Time: The Photography of Sammy Baloji* (January 7, 2012–January 6, 2013) in the *African Voices* Focus Gallery of the **National Museum of Natural History** documents the colonial-era “beautiful time” when the Congolese built a flourishing copper mining industry, only to see it decline following independence in the 1960s under the mismanagement of corrupt governments.

## Crossing Boundaries

### *Research*

In this quarter, the **Museum Conservation Institute (MCI)** worked on over 60 projects with 23 Smithsonian units, plus external organizations such as the National Institute of Standards and Technology, the Department of Homeland Security, and the Department of State.

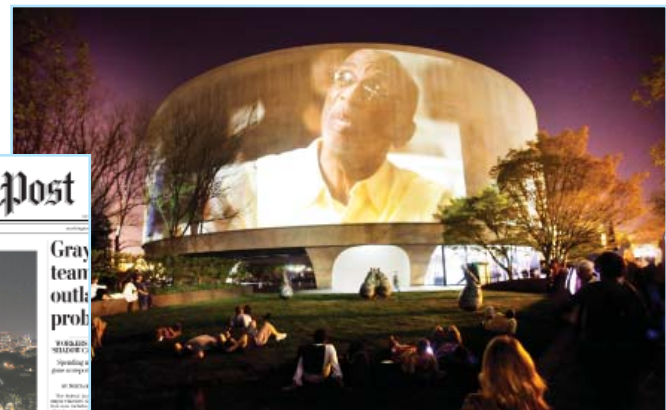
**National Air and Space Museum** Aeronautics Division Curator Von Hardesty published the book *Red Phoenix Rising: The Soviet Air Force in World War II*, with coauthor Ilya Grinberg.

As part of Women’s History Month, **Smithsonian Institution Archives (SIA)** hosted “She Blinded Me with Science: Smithsonian Women in Science Edit-a-Thon” to improve Smithsonian-related content on Wikipedia. Ten Wikipedian participants worked with SIA archivists, online finding aids, and biographical data to broaden the coverage of Smithsonian history on Wikipedia, particularly with respect to women scientists associated with the Institution.

### *Broadening Access*

The **Hirshhorn Museum and Sculpture Garden** displayed *Doug Aiken: SONG 1*, a monumental, 360-degree projection on the exterior surface of the Museum by internationally renowned artist Doug Aiken. This unique commissioned work, which was shown daily from sunset to midnight between March 22 and May 20, melded art, architecture, music, film, and technology.

It received an extraordinary amount of local, national, and international media attention, including on the front page of the *Washington Post*.



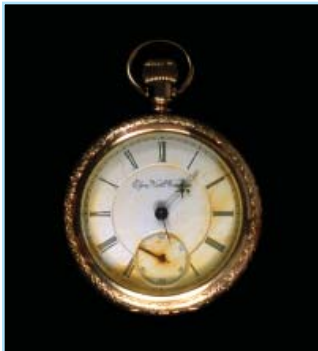
*Doug Aiken: Song 1*



*Suprasensorial*

The **Hirshhorn** also offered the exhibitions *Suprasensorial: Experiments in Light, Color, and Space* (February 23–August 12, 2012), a tribute to the Latin American Light and Space Movement that consists of immersive environments by five artists; and *Dark Matters: Selections from the Collection* (February 3–May 13, 2012), which brought together works from the Museum’s own collection that deal with the theme of darkness.

history and a friend to **National Postal Museum** visitors. This historic pooch is now featured in *Owney: Tales from the Rails*, a new free eBook performed by country singer Trace Adkins and available two ways—online and as an Apple iPad app.



Watch belonging to a mail clerk on the *Titanic*

Also at the **National Postal Museum**, a new exhibit, *Fire & Ice: Hindenburg and Titanic* (March 22, 2012–January 6, 2014), brings together two marvels of transportation that both met tragic ends. In addition to the onboard opulence these vessels provided passengers, the *Titanic* was the world’s largest floating post office in its day and the *Hindenburg* still holds the record as the largest flying post office.

Liz Diller, the internationally renowned architect of the **Hirshhorn’s** proposed Seasonal Inflatable Structure, presented the design concepts for the structure at the 2012 conference of TED, a non-profit devoted to “ideas worth spreading.” Diller’s talk has been posted on the TEDTalks video site where it will potentially reach millions of people.

Young visitors to the exhibition *MathAlive!*, which launched its national tour at the Smithsonian’s **S. Dillon Ripley Center**, learned that mathematics are a part of many of the things they love. From March 10 to June 3, the exhibition drew huge, enthusiastic crowds to the wealth of interactive stations and immersive environments in its six themed galleries.



*Math Alive!*

The **Asian Pacific American Program** hosted an advance look at its *HomeSpun: Smithsonian Indian American Heritage Project* exhibition at a reception hosted by the Indian Embassy. India’s Ambassador to the United States, Nirupama Rao, provided the welcoming remarks.

A Social Impact Design Summit at the Rockefeller Foundation gave individuals and organizations with innovative approaches to socially responsible design a chance to discuss the challenges of this developing field. The Summit was planned by **Cooper-Hewitt, National Design Museum**, the Lemelson Foundation, and the National Endowment for the Arts.

Bill’s Design Talks, a series moderated by **Cooper-Hewitt** Director Bill Moggridge, resumed in February at the Jerome L. Greene Performance Space at New York Public Radio. Programs this quarter included a tribute to Eva Zeisel with art critic Jed Perl and designers James Klein and David Reid, and discussions with Robert Wong of Google Creative Labs and graphic designer Emily Oberman.

# Strengthening Collections

A 448.64 carat morganite gem from Minas Gerais, Brazil, was donated to the National Gem and Mineral Collection of the **National Museum of Natural History** by Tricia and Michael Berns, members of the Smithsonian Gemstone Collectors. This specimen is the finest and largest morganite (pink beryl) in the Collection to date.



Four maned wolf pups were born at the **Smithsonian Conservation Biology Institute** (SCBI). Maned wolves are difficult to breed under human care; researchers believe that the reproductive challenges are caused, in part, by gastrointestinal disorders that may be linked to diet. SCBI is one of 19 institutions participating in a study to determine whether a diet that more closely simulates that of maned wolves in the wild boosts reproductive rates.

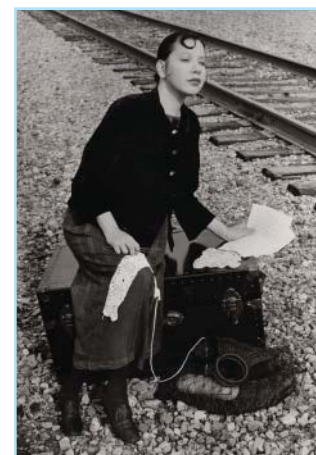
With partners Pixar Studios and NASA, the **National Air and Space Museum** hosted an event for the ceremonial donation of a unique object: an action figure of the “Buzz Lightyear” character from Pixar’s animated *Toy Story* franchise that flew on the Space Shuttle Discovery to the International Space Station. The Chief Creative Officer of Pixar, John Lasseter, presented the figure to Museum Director Jack Dailey.



*Nathan Hale*

The **Smithsonian American Art Museum** accessioned four major artworks this quarter:

- *Nathan Hale* (1890), a sculpture by Frederick MacMonnies.
- Two paintings by Benny Andrews, *The Long Rows* (1966) and *Portrait of Black Madonna* (1987).
- *Maria’s Great Expedition* (1995–1996), a series of six photographs and an inkjet print by Christina Fernandez.



*Maria’s Great Expedition*

# Broadening Access: Education and Outreach

The **Smithsonian Center for Education and Museum Studies (CEMS)** launched the second year of its *Shout* environmental webinar series for educators and students. “Water Matters” focuses on human use of oceans, rivers, lakes, and other water resources. Half of its six days of programming will be broadcast from the **Smithsonian Tropical Research Institute** and **Smithsonian Environmental Research Center**.

CEMS and its partners also presented major family days for Black History Month and Women’s History Month at the Reynolds Center.

The **National Science Resources Center (NSRC)** remained active in promoting reform in the teaching of science in the nation’s schools and beyond. Events sponsored by the NSRC in this quarter brought together educators and educational leaders from elementary and middle schools in the Houston, Texas, Independent School District and from 13 districts and three private schools in Orange County, California, to explore innovative approaches to science instruction.

**Smithsonian Affiliations** offers museums and other organizations access to the Institution’s collections and other resources. At the end of the second quarter, there were 171 Affiliates in 40 states, Panama, and Puerto Rico, and 1,245 Smithsonian artifacts were on view at Affiliates. In this quarter:

- The Smithsonian welcomed three new Affiliates: the Springfield Museum of Art (Springfield, Ohio); Ohio Historical Society (Columbus, Ohio); and Fort Worth Museum of Science and History (Fort Worth, Texas).
- Thirteen Smithsonian staff participated in programs with Affiliates.
- The Smithsonian loaned 28 artifacts to Affiliates.

Along with the **Smithsonian Early Enrichment Center**, Affiliations sponsored a National Symposium on Early Learning to lay the groundwork for future Smithsonian innovations in this area.

The Desert to Rainforest Initiative, a partnership including Arizona State University, Audubon Arizona, Audubon Panama, Panama’s Ministry of Education, and the **Smithsonian Tropical Research Institute**, seeks to give children in Phoenix and Panama greater opportunities to learn about biodiversity and increase their cultural awareness.

In March, an extremely rare and valuable 1933 Saint-Gaudens Double Eagle \$20 coin from the National Numismatic Collection of the **National Museum of American History** traveled to seven European countries on a 28-day tour that attracted huge audiences. More than 100 million households across Europe learned the story of this legendary U.S. coin through television, print, radio, and online interviews with the Smithsonian staff who traveled with it.

In the first two quarters of fiscal year 2012, the **Smithsonian Institution Traveling Exhibition Service (SITES)** circulated 46 exhibitions to 129 venues in 37 states, plus the District of Columbia and Guam, where they were viewed by approximately 2 million visitors.



A young participant in the Desert to Rainforest Initiative



The 1933 Double Eagle

Via mobile outreach, the **Smithsonian Latino Center** launched a beta version of *Chequea esto!*, a series of animated shorts focusing on Latino youth and science-technology-engineering-math (STEM) careers. The **National Museum of the American Indian** pilot project “Reporting from Indian Country” provided five Native schools with equipment and training to produce short video pieces on environmental issues important to their tribes.

The Discovery Theater of **The Smithsonian Associates (TSA)** welcomed Ojibwe artist Thirza Defoe to the Rasmuson Auditorium of the **National Museum of the American Indian** for a special Women’s History Month program, “Sacagawea’s Sisters.”

TSA also presented a panel discussion with legendary major league baseball player and manager Joe Torre, attended by an audience of 1,500. Joining Torre were Mike Wise of the *Washington Post*; Johnny Holliday from *Nats Xtra*; Phil Wood of the *Washington Examiner*, and moderator Phil Hochberg, former Washington Senators stadium announcer.

**Museum Conservation Institute (MCI)** staff offered a variety of undergraduate, graduate, and professional studies opportunities in the areas of museum studies, conservation, and materials science:

- Research Scientist Christine France and six MCI senior personnel were awarded a three-year NSF Research Experiences for Undergraduates grant to support short-term opportunities for undergraduates to work on research projects with MCI scientific staff.
- Furniture Conservator Don Williams hosted and co-taught a course on the “Technology of Historic Furniture Making” as part of the Smithsonian/George Mason University Master’s Program in the History of the Decorative Arts.
- In collaboration with the State Department, Department of Homeland Security, and Smithsonian **Office of International Relations**, MCI organized its sixth training workshop for Homeland Security agents tasked with preventing the illicit trade in art and antiquities. These courses have trained over 150 agents thus far.



MCI intern sampling paint from an object

## Organizational Excellence

### Leadership

Cristián Samper announced he will be leaving the Smithsonian to become President and CEO of the Wildlife Conservation Society in New York City. Samper began at the Smithsonian in 2001 as Deputy Director of the **Smithsonian Tropical Research Institute**. Two years later, he became the Director of the **National Museum of Natural History**, where he led a number of successful initiatives to enhance research and outreach. He served as Acting Secretary of the Smithsonian from 2007–2008.



Cristián Samper (r) tours the *Sant Ocean Hall* with Secretary Clough, Chancellor John Roberts, and President George W. Bush



Christopher Liedel was named President of **Smithsonian Enterprises**. Liedel comes to the Smithsonian after 16 years at the National Geographic Society, where he served as Executive Vice President and Chief Financial Officer.



Scott S. Dahl was named Inspector General for the Smithsonian. Previously, Dahl served as Deputy Inspector General at the U.S. Department of Commerce (2010–2012), Inspector General for the Office of the Director of National Intelligence (2007–2010), and senior counsel to the Inspector General at the Department of Justice (2003–2007).



Deron Burba took over the position of Chief Information Officer, to which he brings more than 20 years of IT experience. Since 2001, he has served as head of the Smithsonian’s Office of System Modernization, where he directed the implementation of Smithsonian-wide IT systems supporting collections, digital assets, business operations, and facilities.



## Information Technology

The **Digitization Program Office** held a one-day workshop, “Let’s Talk About Rapid Capture,” to promote efficient digitization at the Smithsonian. Internal case studies showcased work at the Smithsonian, and presentations by outside experts focused on cutting-edge processes and equipment.

The Smithsonian Online Academic Appointment System (SOLAA), a Smithsonian-wide automated system for managing internships, fellowships, and other scholarly appointments and programs, was upgraded to include a new online review process.

Phase I of EVANS (Every Volunteer Accounted for in Samaritan)—an enterprise-wide system using software from Samaritan Technologies—has been deployed to units including the **National Museum of Natural History**, **National Museum of American History**, **National Museum of the American Indian**, **National Air and Space Museum**, **Smithsonian American Art Museum**, **National Museum of African Art**, and **National Postal Museum**. The goal for EVANS is to serve as a pan-Institutional human resources management system for volunteer labor.

## Major Construction, Renovation, and Facilities Projects

### *National Zoological Park, Asia Trail II: Elephant Trails*

**\$52.3 million estimated total project and program cost**

The second phase of the Asia Trail project has a current budget of \$52.3 million—\$40.47 million Federal (received in fiscal years 2006–2012) and \$11.84 million Trust. Construction of the new elephant barn and two of three outdoor habitats is complete. Work on the elephant community center was 60 percent complete at the end of the second quarter, and additional private funding is being sought to expand the final habitat. The project is scheduled to be finished in 2013.

### *National Zoological Park, General Services Building and North Road Retaining Wall*

#### **\$37.3 million total estimated project cost**

The \$8.3 million Phase I of the project, funded over fiscal years 2004–2011, is complete. It included immediate repairs to the General Services Building (GSB), design of permanent upgrades, and relocation of the Vehicle Maintenance Branch to Suitland, Maryland. Phase II includes \$29.0 million for GSB construction and replacement of an adjacent retaining wall. A supplemental environmental assessment for the retaining wall began in May 2011 and was completed in March 2012. Federal funding has been requested in fiscal years 2012–2014 for Phase II construction.

### *National Zoological Park, Smithsonian Conservation Biology Institute Smithsonian-Mason School of Conservation*

#### **\$37.47 million total estimated project cost**

Construction of joint Smithsonian-Mason program facilities is well under way in Front Royal, Virginia. George Mason University is building facilities funded through a \$20 million state bond, while the Smithsonian is renovating and expanding an existing building to house a new education center. A construction contract for the education center and utility upgrades was awarded in May 2011; work was approximately 60 percent complete at the end of the second quarter of fiscal year 2012. The total cost of this work is \$15.6 million—\$10.6 million in Federal funds in fiscal years 2010–2012, and \$5 million in private funds. All facilities are projected to be complete for the start of the fall 2012 semester.

### *National Zoological Park, Seal / Sea Lion Exhibit—The American Trail*

#### **\$40.6 million total estimated project cost**

The Zoo's Seal/Sea Lion exhibit is being revitalized to meet standards for animal care and to improve accessibility. The project also includes an upgrade of underground utilities in what was formerly called Beaver Valley (and was recently renamed The American Trail). Construction was approximately 75 percent complete at the end of the second quarter, and is projected to be finished in mid-June 2012. A grand reopening is planned for September 2012. The non-capital, interpretive component of the project will be funded with more than \$1 million in Trust funds, while the Federal capital contribution is approximately \$39.6 million in fiscal years 2009–2012.

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

#### **\$500 million total estimated project cost**

The first construction package for mobilization and site utilities was awarded to a construction manager, Clark Smoot Russell Joint Venture, and work commenced in January 2012. Fast-track construction packages continue to be delivered by the design team, and excavation will be the next award, with a spring 2012 start expected. The Museum continues to develop exhibit design and is looking forward to a schematic design delivery in spring 2012. Total project costs are to be shared evenly, with \$250 million from Federal capital funds and \$250 million from non-Federal sources.



### *Arts and Industries Building (AIB)*

**\$52.8 million estimated cost for shell only**

Construction on the AIB shell revitalization project (structural upgrades and replacement of the roof and windows) was 44 percent complete at the end of the second quarter, and is expected to be finished by spring 2013. Major portions of the old roof have been removed, and work on steel framing that replicates the appearance of the original iron trusses continues. Project funding consists of \$30 million from the Federal Legacy Fund, \$15 million from Federal facilities capital funds, and the rest from private gifts.



### *National Postal Museum, New Program Space*

**\$18.8 million total estimated project cost**

The **National Postal Museum**, located in the historic Washington, D.C., City Post Office Building, has been given 12,000 square feet of space and use of a central hall by the U.S. Postal Service. Using funds primarily from non-Federal sources, this new space will be transformed into a philatelic center and a visitor orientation space. Design was completed in late summer 2011. A \$2.9 million exhibit fabrication contract was awarded in March 2012, and a \$6.6 million infrastructure contract was awarded in May 2012. The new facility's opening is scheduled for September 2013.

### *Smithsonian Tropical Research Institute, Gamboa Laboratory Facilities*

**\$23.4 million total estimated project cost**



The **Smithsonian Tropical Research Institute** is building a new terrestrial science lab on its recently acquired Gamboa site to replace outdated facilities, funded with \$19.94 million in Federal and \$3.46 million in Trust funds. In February 2012, 22 members of the Smithsonian National Board, along with their spouses, special guests and alumni, joined Secretary Clough, Under Secretary for Science Eva Pell, Director of Advancement Ginny Clark, and representatives of the Government of Panama to celebrate the groundbreaking for this facility. Project completion is expected in 2014.

### *National Museum of American History, Kenneth E. Bebring Center*

Revitalization of west wing public spaces, package III: \$74.9 million total project cost

The third phase of renovation at the **National Museum of American History** will focus on three west wing public spaces and replacement of windows; the relocation of a Calder sculpture near the work area will be added to the scope of this project. Solicitation for construction is scheduled for spring 2012, with construction to begin in fall 2012. The Federal appropriation for design and initial construction (\$26.3 million) was received in fiscal years 2009–2012, with the remainder (\$41.7 million) requested for fiscal years 2013–2014. An additional \$6.9 million is expected in private funding for exhibit space.

### *Smithsonian Environmental Research Center, Mathias Replacement Laboratory Project*

\$50.66 million total estimated project cost

The **Smithsonian Environmental Research Center** is eliminating trailers that house lab space and offices; renovating and reconfiguring the Mathias Lab; and creating replacement labs that meet national standards. The 95,000-square-foot project employs sustainable technologies and building materials that will yield substantial reductions in energy and maintenance costs. Following a groundbreaking ceremony in May 2011, construction began in June 2011 and is expected to be complete by mid-2014.



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

\$24.0 million total project cost

The entire north ground floor of the main Natural History Building is under renovation. The 15,500-square-foot west end of the floor will become a new education center, and the 27,600-square-foot east end will house an expanded **Smithsonian Early Enrichment Center**, renovated **Smithsonian Institution Libraries** facilities, a paleobiology laboratory, and a consolidated facility support operations center. The project should be completed in summer 2012.

### *Cooper-Hewitt, National Design Museum*

\$59.9 million total estimated project cost

The renovation of the Fox-Miller townhouses is complete. Design for the Carnegie Mansion renovation was completed in April 2011, with a construction contract awarded in December 2011. The contractor started construction in March 2012, with completion scheduled for early 2014. Total project costs include \$27.3 million in Federal funds and \$32.6 million in private funds.

### *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. Costs are estimated at \$9.5 million in Federal funds and \$10.0 million in Trust funds.

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

#### **\$38.5 million total estimated project cost**

Renovations have been completed on Pod 3 in Suitland, Maryland, which provides consolidated storage space for several types of collections. Transfer of collections from four museums is under way and is expected to be complete by June 2012 at a cost of almost \$2 million.

### *Permanent Physical Security Barriers*

#### **\$55 million total project cost**

Security barriers at the **National Air and Space Museum**, **National Museum of American History**, and **National Museum of Natural History** are now in place. Design of barriers for the Castle and Quadrangle will be part of future renovations for each facility, and work on barriers for off-Mall facilities will follow in order of priority.

### *Sustainability*

The **National Museum of Natural History's** restaurant operations have received a 3-Star Certification from the Green Restaurant Association. Certification points are awarded in the areas of energy, waste, water, sustainable food, sustainable furnishings and building materials, disposables, and pollution and chemical reduction.

To investigate possible energy conservation measures at the Smithsonian's Suitland, Maryland, Collections Center, a preliminary assessment for an energy-savings performance contract was submitted. It identifies savings opportunities in the areas of equipment upgrades, operational improvements, and onsite renewable energy systems. The next step will be an Investment Grade Audit to guarantee savings in these areas and secure funding for implementation.



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