

OFFICE OF ADVANCEMENT 1000 Jefferson Drive S.W. MRC 035 | P.O. Box 37012 Washington, D.C. 20013-7012

PRESORTED STANDARD POSTAGE & FEES PAID SMITHSONIAN INSTITUTION PERMIT NO. G94



























IMPACT is published three times a year by the Smithsonian Office of Advancement.



si.edu/support Robert J. Spiller ASSISTANT SECRETARY FOR ADVANCEMENT

Laura Hambleton EDITOR

Heather Ewing ESSAY WRITER

Elise Walter WRITER

Evan Keeling, Smithsonian Exhibits and Elise Walter COMIC

Deanna Luu GRAPHIC DESIGNER

Abigail Croll WEB DESIGNER

Elizabeth McNeely MANAGING EDITOR

Questions? Please contact Laura Hambleton, hambletonl@si.edu



























Smithsonian

January 2021 Vol. 7 No. 1

Special Issue





With and the last



























Our Foundation

ls

[COVER] The cornerstone for the first Smithsonian building, the Castle, was laid on May 1, 1847. For the nearly 18 decades since, the institution has left an imprint on the nation's capital and the world through its 19 museums, nine research centers and the National Zoo. Learn more: siarchives.si.edu

PHOTOS Smithsonian Institution Archives

[1] James Renwick Jr.'s 1846 rendering of a Romanesque castle, complete with an elegant tower that overlooks the National Mall today, won him the appointment of architect for the Smithsonian's first building

James Renwick Jr., Sketch of the north tower of the Smithsoniar Castle, 1846. Smithsonia Institution Archives

Therease A hasta

in it feel

The Secretary and his family would be living in the Castle [fg. 1], along with a number of young naturalists (calling themselves the Megatherium Club and horsing around at night among the museum exhibits).

The air might be filled with acrid smells from the chemistry laboratory or the taxidermy workshop. We might struggle to study the specimens and their Latin labels in the glass cases with only gray winter daylight for illumination. Brass spittoons for chewing tobacco would be strategically located around the exhibition floor. And, outside, workers would be loading horse-drawn carts with the crates of publications and duplicate specimens that the Smithsonian was sharing around the world.

What we know as the Smithsonian in the 21st century—with education programs, interactive displays, museum stores, restaurants and robust global research—is a far cry from its cousin of the mid-19th century.

And yet one thing has remained constant through the centuries: a commitment to James Smithson's dream of "an establishment for the increase and diffusion of knowledge." This mission has made the Smithsonian unique in the world, an extraordinary amalgam of research, education, conservation and public trust.

This special issue of *IMPACT* explores some inspiring threads of continuity in the Smithsonian's pursuit of this mission during the course of 175 years.

f we were to travel back in time to visit the Smithsonian in its first decades of existence, there is much that would feel unfamiliar.

"His only by exchange and mutual assistance that naturallists [sic] can possibly ever succeed in assembling together a collection of subjects of their study, which nature has made so numerous, and disseminated in such various and distant parts of the world."

JAMES SMITHSON FOUNDING DONOR

Going with the the increase of k collaboration wi and volunteers. Of first Secretary of setting up the ne of corresponden

From the very beginning, the Smithsonian has pursued the increase of knowledge with the help of and in collaboration with others—outside partners, friends and volunteers. One of the first acts Joseph Henry, the first Secretary of the Smithsonian, performed when setting up the new institution was to build a network of correspondents and collaborators across the country.

These volunteer citizen scientists recorded their meteorological observations and sent them to Washington, D.C., where the data were compiled and charted to produce the first storm warning system. Eventually this pioneering project became the National Weather Service, and the data collected are still used today in climate change research.

This kind of crowdsourcing has been important not just for information gathering, it has also been a critical means of amassing a national collection. Spencer Baird, the Smithsonian's first curator and later the institution's second Secretary, trained hundreds of volunteer field collectors, wrote upward of 5,000 letters a year to his vast network, and included naturalists in government exploring and surveying expeditions—all in the service of increasing understanding of the natural world. During World War II, Smithsonian scientists recruited members of the armed forces to collect objects in the Pacific, and a number of American soldiers contributed valuable items. The Smithsonian published a guide for service members, *A Field Collector's Manual in Natural History*, and the Secretary at the time, ornithologist Alexander Wetmore, personally kept up a correspondence with many young soldiers sending specimens to the nation's capital.

One such man, Sammy Ray, was a U.S. Navy Pharmacist's Mate First Class stationed in the Pacific. Ray grew up in rural Mississippi, the son of Lebanese immigrants, and became a marine biology professor at Texas A&M University and a world-renowned oyster expert.

"It wasn't easy to collect birds while the enemy was trying to collect me," Ray recalled. "I look back on it as one of the most exciting times of my life. The idea of collecting new birds and adding to the Smithsonian's collection was a passion for me." <text><text><text><text><text><text><text><text><text><text>





in denote Mil Mart March Mil Mart March Stratt and Martin References and Martin References and Martin References and Martin References and Martin Stratt and Anna Anna Martin Stratt Anna Anna Martin Anna Anna Anna Martin Anna Anna Anna Martin Anna Ma

The Smithsonian Transcription Center is just one example of individuals contributing their time and energy to the institution to widen its reach and deepen its knowledge base. Recent transcription projects include: [2] NASA astronaut and first American woman in space Sally K. Ride's handwritten aerobatics notes. Sally K. Ride Papers, Acc. 2014-0025, National Air and Space Museum; [3] William J. Powell's American Expeditionary Forces identification card, 1917. William J. Powell Collection, Acc. 1999-0049, National Air and Space Museum; [4] Ride's STS-7 shuttle training notebook. Sally K. Ride Papers, Acc. 2014-0025, National Air and Space Museum; [5] Notes on traditional craft processes in Indonesia by Stanley Ann Dunham, anthropologist and mother of President Barack Obama. S. Ann Dunham papers, 1978 July 29-August 5. National Anthropological Archives, National Museum of Natural History; [6] Letter from the United States Bureau of Refugees, Freedmen and Abandoned Lands authorizing payment for rations, requested by Sojourner Truth. Correspondence from Col. John Eaton Jr. to Capt. J. M. Brown, 1865. U.S. National Archives and Records Administration, FamilySearch International and the National Museum of African American History and Culture; [7] Marriage certificates issued to Reverend James A. Jones, 1866. U.S. National Archives and Records Administration, FamilySearch International, and the National Museum of African American History and Culture; [8] Letter from artist Frida Kahlo to her partner and fellow artist Diego Rivera, circa 1940-1941. Emmy Lou Packard papers, 1900-1990, Archives of American Art







. to justice by trave of two

g 12 199 in Trans being in trans ring Januhan Tapas pro provident by the a transfer fit to transfer in 100 they

a prati and his function lyalette classes was pravide by the s an analthe loom ty knowledge to the heavy on much and the possible

much 11 m they have the child

and the same to may a be the same of the same to make a same to a same and them then have done done the same the same the same from the same the same of the same the same the same as the to have same being on made at the

The Anton ton for me main by the

Eye-popping Increase in Transcriptions

And it's not just natural history collections, either. Through the Smithsonian Transcription Center, tens of thousands of digital volunteers are making archival, library and museum materials more readily accessible for research from the comfort of their homes. Participation in this project has exploded during the pandemic—up some 1,400% since last year.

Volunteers are bringing new life to the handwritten diaries of artists, the field notebooks of anthropologists and other scientists, audio recordings, account ledgers, catalogue records and much more. They have transcribed more than 673,000 pages since the center began in 2013.

The largest crowdsourcing project the Smithsonian has ever undertaken, in fact, is happening right now. The Transcription Center and the National Museum of African American History and Culture have partnered with the National Archives and FamilySearch International to transcribe more than 1.5 million documents [fig. 6,7] from the archives of the United States Bureau of Refugees, Freedmen and Abandoned Lands.

Congress set up the Freedmen's Bureau following the Civil War to aid in Reconstruction and assist formerly enslaved people in their transition from slavery to freedom and citizenship. Due to the work of dedicated volunteers, these vitally important records containing the names and information of hundreds of thousands of newly freed individuals will soon be searchable by genealogists, historians and others.





[9] [OPPOSITE] Teachers and students from the Smithsonian Early Enrichment Center on a field trip to the National Museum of Natural History, 1994.

Eric Long, SEEC Children on a Field Trip, 1994. Acc. 98-015, Box 2, Folder September 1994. Smithsonian Libraries and Archives

[10] In the Children's Room, specially designed display cases were placed lower to the ground, within view for young people, and Latinate labels were replaced with poetic inscriptions.

United States National Museum Photographic Laboratory, Children's Room, 1901. Smithsonian Libraries and Archives

[11] Goggles at the National Museum of the American Indian's George Gustav Heye Center imitate the sensation of blinding light that reflects off of the Arctic snow. PHOTO Jason DeCrow/AP Images

Museums have a special capacity to awaken curiosity and learning in children through exhibitions, programs, the stories behind objects, and a free flow of ideas. In 1967, when the Smithsonian opened the Anacostia Community Museum, the new museum invited the public to touch and explore boxes full of mystery objects.



(10)

Building a House for Ideas

With the creation of the Children's Room [fig. 10] in 1901, a gallery of natural history exhibitions for children, the Smithsonian became one of the first museums to focus on early childhood education. Today, for the first time, the institution is led by a historian with a deep commitment to education, Secretary Lonnie G. Bunch III, and he has put pre-K-12 education at the center of everything.

This experiment—to see how handling real museumquality artifacts might enhance the visitor experience led to the creation of the Discovery Room at the National Museum of Natural History, where trained educators facilitated visitors' explorations of specimens from the collections. Launched in 1972 with National Science Foundation funding, it was a model for a new kind of learning experience in museums that quickly became popular at museums, zoos and nature centers everywhere. It also became a way for museum workers to study how visitors learn from objects and each other.

The Discovery Room evolved into Q?rius, the Coralyn W. Whitney Science Education Center, an interactive and experimental learning space where students and other visitors can handle specimens, study collection items under microscopes, talk to experts, and work collaboratively to investigate questions similar to those posed by the real-world research of Smithsonian scientists.

Elsewhere at the Smithsonian are more spaces offering hands-on, guided experiences. The imagiNATIONS Activity Center, which opened in 2018 at the National Museum of the American Indian's George Gustav Heye Center [fig. 11] in New York, is an interactive space to explore Native technologies and innovations that continue to shape our world today.

ARTLAB+ at the Hirshhorn Museum and Sculpture Garden is a digital art studio providing teens free access to the latest technology, a wide range of art materials, and mentoring by professional artists.

And Wegmans Wonderplace at the National Museum of American History, designed for children 0-6 and organized around themes connected to the collections of the museum, encourages open-ended play.



"We know th ity,

NICK PYENSON RESEARCH GEOLOGIST AND CURATOR OF FOSSIL MARINE MAMMALS NATIONAL MUSEUM OF NATURAL HISTORY

t how the climate PHOTO Sean Mattsor

"We can work backwards if we need to, to find animal reservoirs for viruses we don't even realize are there yet."

PI

0

[16] The National PHOTO N seum of Natural History

. •

Asking New Questions of **Old** Collections

When we think of the historic collections of the Smithsonian, often it's the iconic objects of American history and culture that jump to mind: the Star-Spangled Banner, Abraham Lincoln's top hat, Dorothy's ruby slippers, the Apollo 11 command module and the like. But the Smithsonian is not only the steward of America's treasures. Many of the collections the institution cares for—totaling more than 155 million items—are sources of active research. Some were collected before the creation of the Smithsonian, such as the herbarium specimens from the United States Exploring Expedition, 1838-1842. Many document life and cultures and environmental conditions that no longer exist today.

These collections are irreplaceable records of human existence, of biological diversity, and of planetary ecosystems. And they are continually yielding new information: They offer a baseline for biodiversity studies; they help us to understand and chart environmental change and to monitor the accumulation of toxins or contaminants; and they are critical tools for tracking the evolutionary history of viruses and pathogens.

With the advent of new technologies—such as those enabling DNA extraction from historic specimens, or the mass digitization of collections—and a deeper emphasis on reinterpreting Smithsonian objects and stories through the American Women's History Initiative and the Smithsonian Latino Center's Molina Family Latino Gallery, for example, scientists and scholars are undertaking research that their counterparts from 100 or even 50 years ago could never even have imagined.





(18)

A Bird's Eye Viewon

Conservation

[17] California condor chick at the National Zoological Park, 1902. Smithsonian Institution Archives

[18] Condors have been objects of fascination for centuries. The condor is one of 119 colored plates included in the 1885 *illustrated tome* The Birds of North America, compiled by leading ornithologists of the day. Biodiversity Heritage Library

[19] Queen Kapi'olani of Hawai'i gifted her personal canoe—the oldest known native Hawaiian canoe housed in any museum—to the United States and the Smithsonian as a gesture of goodwill between two countries, before Hawai'i became an American state. Outrigger canoe, 1887. Gift of Queen Kapi'olani, National Museum of Natural History

[20] [OPPOSITE] The late Ray Bumatay carved his first canoe at 34, and by 80 had turned out more than 30, including this 13-foot koa canoe. He taught his son Alika Bumatay, who is partnering with the Smithsonian to bring this craft to new audiences. PHOTO Dino Morrow

A California condor collected in the Pacific Northwest in 1835 and given by John James Audubon to the second Secretary of the Smithsonian is one of the oldest specimens in the National Museum of Natural History bird collections and one of the oldest condors in existence. It is still yielding new insights today.

These majestic birds once ranged from the Baja California Peninsula in Mexico to southern British Columbia. Centuries of European colonization and industrialization brought their numbers to near extinction, and by the 1980s there were only 22 left, all in captivity. A captive breeding program led to their re-establishment in the wild, though their numbers and current territory remain small.

This historic specimen has been used in recent research to understand the genetic diversity of the species over time, and to learn more about what the bird was once like compared to its modern relative.

Historic Tells a New Story

Canoe



awaiian outrigger canoe (wa'a in Hawaiian) was gifted to the Smithsonian in 1887 by ieen Kapi'olani. Today it is bringing Hawaiian d Māori master canoe carvers together in a dialogue about the sacred tradition of canoe making in seafaring Oceanic communities.

Colleagues from the National Museum of Natural History's Recovering Voices program, the Smithsonian Asian Pacific American Center and the Smithsonian's Museum Conservation Institute are working alongside master Māori canoe carver James Eruera of the National Canoe School (Te Tapuwae o te Waka) at the New Zealand Māori Arts and Crafts Institute and master Hawaiian canoe carver Alika Bumatay to study the wa'a. Bumatay learned from his late father, Ray Bumatay, who was a vital contributor to this project

The master carvers are sharing their knowledge with each other and with curators Joshua A. Bell and Kālewa Correa, and—thanks to video conferencing and a 3D digital rendering of the canoe—they are also connecting with high school students in Hawai'i and Aotearoa (New Zealand) to share stories about tools, ancestral traditions, and what can be learned from a nearly 250-year-old mus

Contemporary Artists Reinterpret the Past For more than 10 years the Smithsonian Artist Research Fellowship (SARF) has provided artists with special access to historic collections and archives across the institution. The program has supported more than 150 artists while also invigorating the creative horizons of Smithsonian scholars and museums.

KEN GONZALES-DAY is a SARF artist whose work [fig. 21] was featured in the 2018–2019 exhibition UnSeen: Our Past in a New Light, Ken Gonzales-Day and Titus Kaphar at the National Portrait Gallery. In explaining the value of artist research in museums, he notes, "Part of my work, in general, has been to go back and try to find forgotten histories and to give them new form."

Korean American artist MICHAEL JOO began his residency with a plan to study 3D scanning and the relationship between art and technology. He was drawn to the red-crowned crane, a traditional symbol in Korean culture but also now a symbol of conservation and the threat of extinction. This stunning and rare bird, endangered because of human encroachment on its wetlands habitat, has been the subject of study at the Smithsonian Conservation Biology Institute.

A scanned image of a crane's body, collected in the 19th century in what is today the Korean Demilitarized Zone and awkwardly contained in its storage vessel, served as the inspiration for artwork [fig. 22] showcased in Joo's solo 2016–2017 exhibition at the Freer Gallery of Art and Arthur M. Sackler Gallery, the National Museum of Asian Art.



(22)

French artist CAMILLE HENROT spent her residency filming behind the scenes in the collections, images that became part of a 13-minute video, *Grosse Fatigue* ("Major Exhaustion" or "Dead Tired") [fig. 23]. Conceived as a creation story for the internet age, a mesmerizing meditation on the origins of the universe and the profusion of information in contemporary life, it was presented at the Venice Biennale in 2013.

Every milestone anniversary is both a celebration and a time to take stock and reflect. Especially now. The Smithsonian enters into its 175th anniversary year in the midst of the longest closure in the institution's history, and as the country experiences a profound moment of change and upheaval.

At such a time of uncertainty, we know that our biggest challenges are ones most successfully faced together. The Smithsonian is leaning on its capacity as a trusted convener to forge new collaborations—across disciplines, across nations, across cultures—so that we may best take on the most urgent and pressing issues of our age.

21] Gonzales-Day's photographs in UnSeen: Our Past in a New Light examine how race is constructed often, inaccurately or inappropriately—through busts, sculptures and ethnographic casts held and exhibited by American and European museums. Referenced works include: Henry Weekes, Bust of Mary Seacole, 1859, The J. Paul Getty Museum; Jean-Baptiste Pigalle, Bust of Mme. Adélaïde Julie Mirleau de Neuville, née Garnier d'Isle, 1750s, The J. Paul Getty Museum PHOTO Ken Gonzales-Day and Luis de Jesus, Los Angeles

Cour Gupt © Mi [23] Henn 2013 Silor

[23] Still from Camille Henrot, *Grosse Fatigue*, 2013. Courtesy the artist, Silex Films and kamel mennour, Paris/London. © ADAGP Camille Henrot



[22] Michael Joo, silvered-crane1, 2016. Courtesy the artist, Kavi Gupta, and Kukje Gallery © Michael Joo

175 YEARSOF PHOTOGRAPHY

AT THE SMITHSONIAN

THE SMITHSONIAN CAME INTO BEING AROUND THE SAME TIME AS THE MEDIUM OF PHOTOGRAPHY.

Thomas Smillie was not just the Smithsonian's first staff photographer; he was also its first photo curator, amassing a large collection charting the history of this technology, which has so transformed how we see and how we process information.

Smillie and his assistant Louisa Bernie Gallaher carefully documented the activities, collections, the staff and the buildings throughout the 19th and early-20th centuries.

Photography as a means of documentation has remained a critical part of the Smithsonian's work throughout its 175 years, and such images-millions of them-can be found throughout the archives and the museums and their various divisions and departments.

That first photo history collection amassed by Smillie, today housed at the National Museum of American History, is joined by some 700 photo collections all across the institution.

Photography across the Smithsonian holds so many meanings. It is valued as an art form, a means of portraiture, a research tool, a record of scientific observations, an everyday pursuit, a vehicle for advertising or communication, and much more. Here is a small sampling of the breadth and depth of 175 years of photography at the Smithsonian.

PHOTOGRAPHIC HISTORY

[LEFT TO RIGHT]

Thomas Smillie, Samuel F. B. Morse's Daguerreotype Equipment, 1888. Smithsonian Institution Archives

Matt Flynn, SX-70 Camera And Case, 1972. Cooper Hewitt, Smithsonian Design Museum

Wilson A. Bentley, A "Dendrite Star" Snowflake and Snowflake 332, ca. 1890. Smithsonian Institution Archives

Jeff Tinsley, NAMES Project AIDS Memorial Quilt on National Mall, 1989. Smithsonian Institution Archives



The first purchase the Smithsonian made as part of its formal effort to document the history of photography was Samuel F.B. Morse's daguerrotype equipmentphotographed here using the cyanotype process by Thomas Smillie. Morse met inventor Louise Daguerre in Paris in 1839 and published the first description of the new technique in the United States. He was also one of the first Americans to make daguerrotypes.

"As much as it is an image of beauty, a photograph is an index of a maker's invention, whether it is a photograph of a bridge, a lock or a portrait."

THE MCEVOY FAMILY CURATOR FOR PHOTOGRAPHY SMITHSONIAN AMERICAN ART MUSEUM





The Smithsonian has continued to collect photographic equipment and examples of new processes ever since. Cooper Hewitt's collection holds examples of cameras noted for their innovative design. The 1972 Polaroid SX-70 revolutionized instant photography. Its handsome leather and brushed-chrome housing folded flat and fit in a jacket pocket. Each 10-print film pack contained a built-in battery powering the camera. A user could watch the image appear over a few minutes, making the SX-70 a runaway success.



Wilson "Snowflake" Bentley, working in the cold outdoors on his family's Vermont farm, pioneered the technique of photomicrography, becoming the first to photograph a snowflake. He captured more than 5,000 snow crystals, illuminating their infinite variety and beauty. To ensure their preservation for the future, he donated a collection of 500 of these images to the Smithsonian in 1903.



In addition to documenting exhibitions, specimens, and the internal activities of the Smithsonian, staff photographers over the course of the institution's history have also recorded events happening on and around the National Mall: the Folklife Festival, presidential inaugurations, protests and more. Smithsonian photographer Jeff Tinsley captured the display of the NAMES Project AIDS Memorial Quilt on the Ellipse in front of the White House in October 1989.

PHOTO AS DOCUMENTATION

[LEFT TO RIGHT]

First Launch from Cape Canaveral, Florida, July 24, 1950. U.S. Air Force and National Air and Space Museum

Glass lantern slide, circa 1920s. The Garden Club of America Collection, Archives of American Gardens, Smithsonian Gardens

Berenice Abbott, City Arabesque, 1938 June 9. Changing New York/Berenice Abbott 1936-1938, Archives of American Art

Antoin Sevruguin, Persepolis. King stabbing monster, ca. 1900. Freer Gallery of Art, National Museum of Asian Art



Photography is critical to creating a record. especially when it comes to documenting events. This image captures camera operators in the foreground recording an important moment in the history of American space exploration, the first launch from Cape Canaveral in Florida on July 24, 1950. The Bumper 8 rising into the air was also the first two-stage rocket—i.e., a rocket that could be launched in flight from another rocket-the United States successfully launched.



The Archives of American Gardens holds photographic images documenting more than 10,000 historic and contemporary gardens. Since gardens are ephemeral by nature, photographs are often the only surviving evidence of their existence. This hand-painted lantern slide, showing the entrance to the "French Gardens" on the McCann Estate in Oyster Bay, New York, documents the design work of Annette Hoyt Flanders, a pioneer in the field of landscape architecture.



From a Wall Street rooftop Berenice Abbott found an artistic means of documenting the landscape of downtown New York in City Arabesque. She began photographing the cultural and urban life of the city in the 1930s for the Depression-era government program. the Federal Art Project. In anticipation of the World's Fair in New York, she chose this image and others for her 1939 book Changing New York.



The Armenian artist Antoin Sevruguin operated one of Iran's most successful early commercial photography studios. The largest surviving cache of his glass plate negatives in public hands is now in the archives of the Freer Gallery of Art, offering an important record of historic sites and Iranian daily life. This image depicts a relief at the entrance of the harem of the Palace of Xerxes at Persepolis, one of the great sites of the ancient world.

PHOTO AS PORTRAIT

[LEFT TO RIGHT]

Jack Mitchell, Alvin Ailey dancer Leonard Meek in The River, 1992, National Museum of African American History and Culture and Alvin Ailey Dance Foundation, Inc. © Alvin Ailev Dance Foundation, Inc. and Smithsonian Institution all rights reserved

Philip Haas, Half-plate daguerreotype of John Quincy Adams, 1843. National Portrait Gallery

WAC Recruiting, 1943. Grace F. Thorpe Collection, National Museum of the American Indian

Addison N. Scurlock, W.E.B. Du Bois, c. 1911. Archives Center, National Portrait Gallery © Scurlock Studio Records

PHOTO FOR SCIENCE

[LEFT TO RIGHT]

Clare Fieseler, Station Manager Zach Foltz on the barrier reef, 2014. Carribbean Coral Reef Ecosystems Program, Smithsonian Environmental **Research Center**

E. Keats Webb, Self-Portrait, 2015. Museum **Conservation Institute**

Ginkao adiantoides (Unger) Heer, 2019. National Museum of Natural History

X-ray: NASA/CXC/SAO; UV: NASA/JPL-Caltech; Optical: NASA/STScl; IR: NASA/JPL-Caltech, M51 galaxy (composite), 2015. Smithsonian Astrophysical Observatory



Photography is a critical tool for scientists and researchers across the institution. Since the early 1970s Smithsonian scientists have been studying coral reef ecosystems based at Carrie Bow Cay, a small island on the Meso-American Barrier Reef in Belize, the largest barrier reef complex in the western hemisphere. Photography is a key aspect of their survey work. It aids in their identification of species and enables the close study of fish, corals, invertebrates, grasses and the like.



At the Smithsonian's Museum Conservation Institute (MCI), a variety of advanced imaging technologies, including 3D imaging, offer conservators and scientists important non-invasive tools in their care and analysis of Smithsonian collection objects. As part of their efforts to safeguard cultural heritage, MCI also responds to requests from other museums and federal agencies, offering its expertise to prevent trafficking and help protect cultural artifacts.



The ginkgo tree, which has been in existence for millions of years, is the focus of the Fossil Atmospheres Project. Smithsonian researchers are investigating the geological record to gain insight into the levels of CO² in ancient atmospheres, as part of efforts to better understand the influence of CO² concentration in climate change. Citizen scientists are invited to help build a key dataset for this study, from specimens of living trees being grown in an experiment at the Smithsonian **Environmental Research** Center, as well as fossil leaves from the collection.



The Smithsonian Astrophysical Observatory has been operating the Chandra X-Ray Observatory on behalf of NASA since its launch more than 20 years ago. Its Education and Public Outreach Program processes the X-ray data into state-of-the-art public visuals, often combining them with observations in other types of light, to make this research accessible to millions. This composite image draws on X-ray data collected between 2000 and 2012, combined with optical, infra-red and ultraviolet data. It shows a spiral galaxy, like our Milky Way, nicknamed the Whirlpool and located about 30 million light years from Earth.



[LEFT TO RIGHT]

Malekeh Nayiny, Untitled (Three Uncles) from the series, Updating a Family Album, 1998. Arthur M. Sackler Gallery, National Museum of Asian Art © Malekeh Nayiny

Trevor Paglen, STSS-1 and Two Unidentified Spacecraft over Carson City (Space Tracking and Surveillance System, USA 205), 2010. Gift of Mike Wilkins and Sheila Duignan, Smithsonian American Art Museum © 2010, Trevor Paglen

Fathi Hassan, The Light Man's Historical Footstep, 1985. National Museum of African Art

Thomas Eakins, Cat in Eakins's Yard, ca. 1880-1890. Gift of Joseph H. Hirshhorn. Hirshhorn Museum and Sculpture Garden



From its beginnings, photography's capacity to capture a likeness has meant that portraiture is one of its most ubiquitous forms. The National Museum of African American History and Culture recently made available the fully digitized archive of Jack Mitchell's photographs of the legendary Alvin Ailev American Dance Theater. For more than 30 years, Mitchell chronicled this influential troupe, creating a portrait of the company, its dancers, its choreography and performances.



Among the National Portrait Gallery's collection is this remarkable object: a daguerreotype portrait of John Quincy Adams, born in 1767 and the first U.S. president to be photographed. It is the only original in existence. At the time this likeness was taken in 1843, just four years after the introduction of this technique, Adams was serving as a representative in Congress and laboring to see the bequest of James Smithson become a reality.



This portrait of Grace F. Thorpe, daughter of American football player and Olympic athlete Jim Thorpe, depicts her during her time as a corporal and recruitment officer in the Woman's Auxiliary Army Corps (WAC). She was stationed in the Philippines, Japan and New Guinea, and was awarded a Bronze Star. She devoted her later years to Native rights and environmental activism, participating in the 1970 occupation of Alcatraz and cofounding the National Indian Women's Action Corps and the National **Environmental Coalition** of Native Americans.



The brilliant scholar, activist and educator W.E.B. DuBois was photographed by Addison Scurlock around 1911, around the time he assumed a leadership position at the National Association for the Advancement of Colored People, an organization he had helped to found. The Smithsonian maintains the archive of the Scurlock Studio-founded by Addison Scurlock-a vast trove of photographic material from this vital Black-owned business that operated for nearly a century in the heart of Washington, D.C.



In museums across the Smithsonian are works by artists who use photography as their medium. Malekeh Naviny left her native Tehran to study in the United States and France. Unable to return home following the 1979 Revolution, she looked to old family photos as a way to connect with her history digitally manipulating them to imbue them with new life and color. This work was on view at the National Museum of Asian Art in 2019-20 as part of the exhibition My Iran: Six Women Photographers.



Artist Trevor Paglen uses photography to reveal what has been called a "landscape of secrecy," the unseen mass surveillance state that surrounds us today. In this long-exposure photograph of the night sky above Carson City, Nev., Paglen seeks not to describe the beauty of the heavens, but rather the presence of satellites and unidentified space craft. Paglen was a Smithsonian Artist Research Fellow in 2011, and this work formed part of a midcareer survey, Trevor Paglen: Sites Unseen, at the Smithsonian American Art Museum in 2018.



Artist Fathi Hassan often uses photography in his performance art, as in this photographic still from a 1985 video installation. In creating The Light Man's Historical Footstep, Hassan described taking a photograph of his right foot and "then the left appeared as a memory of steps." The incised calligraphic script, a frequent motif in the artist's oeuvre, is deliberately illegible, a reference to lost languages and a legacy of displacement on account of colonialism.



Sometimes photography is a vehicle for artists who work primarily in other mediums. The Philadelphia artist Thomas Eakins took many photographs, though never for exhibition. He often used them as studies for his paintings and as teaching tools in his lectures for art students. Many were private portraits of family and friends, including this of his cat. Part of a large collection of Eakins material at the Hirshhorn Museum and Sculpture Garden, this image was chosen by John Baldessari for his 2006 exhibition, Ways of Seeing: John Baldessari Explores the Collection.

was 22 years old when he was elected to the prestigious Royal Society in 1787, the youngest member of this scientific body at the time of his induction. Through the course of his life, the Englishman published

nearly 30 papers in notable scientific journals, identified a new mineral (later named "Smithsonite" in his honor) and developed a test for detecting mercury that remained in widespread use into the 20th century.

> Named for James Smithson, the mineral Smithsonite National Museum of Natural History

He could not have imagined what his gift would help create: an institution that reaches across the globe and into the universe—dedicated to public service, in communion with the American people, and a beacon of discovery. But he did understand that knowledge and curiosity have the capacity to change the world for the better.

Z 101

James Roberts, James Smithson at Oxford University at the time of his graduation, 1786. National Portrait Gallery

> **EDUCATION** PHOTO Jason DeCrow/AP for National Museum of the American Indian

SCIENCE PHOTO Christian Ziegler, nian Tropical **Research** Institute

HISTORY PHOTO Jim Preston, National Air and Space Museum

COMMUNITY PHOTO Jon Ackaoui, Arts and Industries Building

CULTURE PHOTO Hirshhorn Museum and Sculpture Garden

ART PHOTO Erin Schaff, Arts and Industries Building

But his most important contribution came after his death: a bequest to the United States, a place he never visited, to found an institution dedicated to "the increase and diffusion of knowledge."

Smithson was an active member of London's coffee-house culture. He understood the value of lively debate, and how critical the exchange of ideas and collaboration among scientists was for the pursuit of knowledge. His field was chemistry, and he believed in the power of science—not just within his laboratory, but its capacity to transform society.



Plate IV, from Characters who frequented Button's Coffeehouse about the year 1720, 1786. Cooper Hewitt, Smithsonian Design Museum

icrea thusion of

The Smithsonian's core values are rooted in Smithson's biography and beliefs, though our mandate has expanded beyond science to include art, history, culture and the many ways that all of these are connected.

His gift was an act of imagination and faith and inspired a new kind of philanthropy that relies upon partnership between public institutions and private citizens. People give to the Smithsonian because they believe in our mission.

Smithson provided that mission, the "increase and diffusion of knowledge," along with his founding gift, words we still live by.

BACKGROUND IMAGE James Smithson Last Will and Testament, October 23, 1826. Smithsonian Institution Archives

THE CATALYST: JAMES SMITHSON



*Their field books—held at the Smithsonian—are still used by naturalists today. Explore: transcription.si.edu/project/10875



A HOME FOR LIVING CULTURE











