Art and Science of Smithsonian Collections

Protecting and Preserving Paintings for the New National Museum of African American History and Culture

Collections

The Museum of African American History and Culture (NMAAHC) is creating a collection of paintings by and about African Americans. Visitors to the museum will see how artists viewed and interpreted their world, beginning in the early years of the 19th century with Joshua Johnson; to works by Jacob Lawrence, Romare Bearden, Aaron Douglas; continuing through to the present with contemporary artists such as Radcliffe Bailey, Sam Gilliam, and Amy Sherald. The paintings collection includes both traditional oil paintings and a diverse array of modern and contemporary works using a wide variety of materials and techniques.

Analysis

Scientific analysis is fundamental to conservation research and treatment. For example, Fourier Transform Infrared Spectroscopy (FTIR) is a technique commonly used by conservation scientists at the Museum Conservation Institute (MCI) to identify organic compounds and paint binders from very small samples. Microfading testing (MFT) is a spot test for assessing the vulnerability of colors to light-fading. Data provided can improve the protection of the artwork.

Solutions

One of the primary concerns in conservation is the physical stabilization of the paintings. If the artwork is in danger of losing material, conservators will take measures to slow the degradation. Treatment also address problems caused by damage, dirt and grime, old restorations, differential discoloration of the paint and the support (wood, paper, plastic, fiberboard, canvas etc.).

Active Care

Change occurs more rapidly in young art. How we exhibit and store young art has tremendous bearing on how long it will last, during the exhibit and beyond. The number of materials used by artists in modern and contemporary art is inestimable; however, there is limited knowledge as to how these materials age. The care of the paintings at NMAAHC is provided by optimal environments and light and safety protection. Proper packing, shipping, handling, hanging and mounting can reduce risk, protect fragile paint surfaces, and prevent irreparable damage to works of art in exhibit and transit.

We assess the condition of the artwork, including degradation and changes in caused by prior damage. We consult with conservation, curatorial, and scientific colleagues to gain a broader perspective of the condition of the painting.

A Closer Look

We can look closely paintings, under magnification and using various lighting conditions.

Whenever possible, we make use of non-invasive techniques such as x-ray fluorescence (XRF) and x-radiography to analyze artworks. Microfading testing (MFT) is a spot test for assessing the vulnerability of colors to light-fading. Data provided can improve the protection the artwork.

Conservation Scientist, Gwynneth Ravich and conservation fellow Stephanie Barnes examine a sample using an FTIR microscope

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A cross section showing layers of paint in “Big Egg” by Ed Clark

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Treatment of “Big Egg” (1968) by Ed Clark. The painting was cleaned, stabilized, and supported on a new panel strainer.

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“View of Lake Okanagan” (1882) by Grafton T. Brown, before and after cleaning to remove a discolored, yellowed varnish.

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Also of concern are visual changes due to aging, fading, hidden defects of the paint and use of incompatible materials. Once the painting is stable, visual disruptions can be minimized. This is accomplished while considering the artist’s intent, aesthetic unity, and acceptable change. Only materials that can be easily removed are used for aesthetic treatment.

Conservation Scientist, Claire Gerhard and Physical Scientist Thomas Lam examine “Pink Plain” (1996) by Frank Bowling, using MFT

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Projects of non-standard dimensions and materials provide challenges for safe handling and display. Conservators collaborate with other museum experts. Pictured are Jackson Tanner, NMAAHC and Craig Huzway, NMAI (above), and Robert Patterson, NMAI and NMAAHC Curator Tuliza Flemming (below)

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Team

Paintings Conservation Studio and Technical Studies, MCI

Offices of Collection, Management and Planning and Curatorial Art, NMAAHC

Exhibit Production, NMAI

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