Articles You May Have Missed

“Light Relief: Could New Lighting Technology Avert the Need for Restoration?” The Art Newspaper, 01/31/2020

Lighting affects our perception of a work of art. Just ask Robert van Langh, the head of conservation and science at the Rijksmuseum, where the Netherlands’s most famous painting, Rembrandt’s The Night Watch, is undergoing the most ambitious conservation effort in its 378-year history.

A chance observation made when the 1642 painting was temporarily relocated to a side gallery alerted the museum staff to details that had been previously thought lost, such as the architectural background. Changes in technology over the past decade have transformed art lighting from a presentational aid to a tunable precision tool that can function as a non-invasive means of limiting the need for traditional restoration techniques.

The steady replacement of traditional halogen lamps with energy-efficient LEDs has resulted in significant savings for museums and galleries, while reduced heat emissions and little to no ultraviolet or infrared radiation have lowered (though not eliminated) the risks posed to works of art from light sources, thereby granting greater freedom to conservators and curators.

The treatment plan for The Night Watch has yet to be determined, Van Langh emphasizes, and while he was not prepared to say whether lighting might offer a substitute for other conservation steps, he makes it clear that non-invasive interventions are always preferable.

Van Langh insists that observations must be substantiated by science, with one likely source of data a map of the painting’s chemical constituents currently being compiled through macro X-ray fluorescence (XRF) scans. For now, Van Langh is focused on establishing “which wavelengths of light to use so that we see as much as possible of The Night Watch”.


“The Scream” is fading. Tiny samples of paint from the 1910 version of Edvard Munch’s famous image of angst have been under the X-ray, the laser beam and even a high-powered electron microscope, as scientists try to figure out why portions of the canvas that were a brilliant orange-yellow are now an ivory white.

Since 2012, scientists based in New York and experts at the Munch Museum in Oslo have been working on this canvas to tell a story of color. But the research also provides insight into Munch and how he worked, laying out a map for conservators to prevent further change, and helping viewers and art historians understand how one of the world’s most widely recognized paintings might have originally looked.

Jennifer Mass, the president of the Scientific Analysis of Fine Art lab in Harlem, explained the science recently in her lab. She pointed to a photograph of what looked like a set of stalagmites: the surface of “The Scream” seen under a microscope. “This is really, really not what you want to be seeing,” she said. Nanocrystals are growing on the painting.

Eva Storevik Tveit, paintings conservator at the Munch Museum, said the museum had sought out Dr. Mass because of her expertise in cadmium yellow. Munch’s materials have now been more fully analyzed, and the research, due out this spring, fleshes out a more complete story about the painting. Dr. Mass’s team was able to narrow down Munch’s paint choices using his paint tubes, some 1,400 of which are held by the Munch Museum.

Over time, with exposure, the yellow cadmium sulfide has oxidized into two white chemical compounds, cadmium sulfate and cadmium carbonate. The analysis, Dr. Mass said, has implications for Impressionist through Expressionist paintings made between the 1880s and the 1920s painted with cadmium yellow, 20 percent of which she estimates are experiencing similar phenomena.

The colors of the late 19th century and early 20th century are fading especially rapidly because of changes that took place in paint making. The industrial revolution brought about the production of synthetic pigments like cadmium or chrome yellows. Artists began experimenting with these synthetic pigments, which were sometimes haphazardly prepared and untested for the purposes of longevity but were exceptionally bright — enabling the brilliant palettes of Fauvism, Post-Impressionism and modernism.

That made the new pigments popular. Dr. Mass said, but they were unpredictable. Conservators wouldn’t apply new pigments to a canvas — but digital reconstructions can gesture at the past. Dr. Mass predicts a shift toward augmented reality in reconstructions, so that you might hold up your phone to a painting and see its former color layered on the canvas.

“HBCU Students Restore 1940s African American Art in Delaware,” WHYY PBS, 02/11/2020

In the late 1800s and into the early 1900s there was a big trend of exhibitions and world’s fairs. The first ever world’s fair, called the Centennial Exposition, took place in Philadelphia in 1876 and was attended by more than 8 million people from around the world.

Unfortunately, the world’s fair has a long history of racism. Early world’s fairs put people of color from around the world on display as part of exhibitions. At the Chicago World’s Fair in 1933, “African Americans were shoved in the back in little shanties and they couldn’t even come to the main part,” said Joyce Hill Stoner, director of preservation studies at Winterthur Museum in Delaware.

After years of work, the 1940 American Negro Exposition in Chicago finally put the spotlight on African American heroes, both the historic and of that time. The event featured 12-foot-long murals and 33 diorama boxes. The creations depict scenes as far back as the construction of the Sphinx in Egypt.
A testament to New Orleans’ vibrant past, the Fountain of the Four Winds, a neoclassical structure designed in 1930, was an inspiration for artist Enrique Alférez. It was a tribute to the prevailing four winds, with elements that remain anonymous. He engaged the services of a UK-based collector who wished to remain anonymous.  

Grenier is restoring the statues of the fountain, a tributary to the Four Winds. Alférez, who died in 1999 at the age of 98, was a prolific sculptor whose artwork graces public and private spaces throughout New Orleans. His work, “David and Goliath,” is a renowned piece that was destroyed by artist Charles Dawson, who transported 20 of the 33 dioramas by truck from Chicago to Tuskegee, AL. “They were 60% destroyed when they got to Tuskegee,” Stoner said.

For decades, the dioramas remained hidden in an Alabama basement. Now, meticulous restoration work is underway at Winterthur Museum. The larger goal of the restoration effort is encouraging African American art students to study the chemistry and art history needed to work in conservation. Only 1 to 2% of conservators are African American, Stoner said. “So by these displays, by our tours and by the four students we’re accepting each June to work on the dioramas, we’re getting more African American undergrads excited, we hope, about the rather complicated background you need as a conservator.”


The long-neglected and nearly-forgotten “Fountain of the Four Winds” — one of Louisiana’s most spectacular, yet controversial Great Depression-era New Deal works of art located at the New Orleans Lakefront Airport — is at last being restored to its former glory.

A masterpiece designed in a neoclassical style and built in the mid-1930s by New Orleans sculptor Enrique Alférez, the fountain is a tribute to the prevailing four winds. Alférez, who died in 1999 at the age of 98, was a prolific sculptor whose artwork graces public and private spaces throughout New Orleans.

Doing the restoration is Elise Grenier. Painstakingly working through an internationally approved conservation process, Grenier is restoring the statues and surrounding pool wall. The fountain was part of a $233,000 two-year WPA and Levee Board-funded airport beautification project that began in 1936. Alférez hit a snag when local WPA officials objected to the North Wind’s exposed penis. They ordered him to chisel it off.

He recounted the story in a 1989 University of New Orleans documentary: “The director of the WPA here, a roughneck, said, ‘I’m not going to let my men go there and stand in front of that indecent thing, the man with his ding dong hanging out’.” “There was a meeting at the City Park board and WPA. They were horrified that I should have a nude man there. They said, ‘What would your mother say?’ I told them if my mother didn’t know what it was, I would not be here.”

Alférez reported the incident to his friend Lyle Saxon, head of the local WPA Writers Project and Saxon intervened. Alférez said Saxon wrote letters of appeal to President Franklin Roosevelt and his wife Eleanor. They responded, saying they had no objection to the statue. The WPA official backed off. Since the 1930s, the fountain slowly decayed, despite shoddy repairs, and it stopped working long before Katrina.

“Newly Attributed Artemisia Gentileschi Painting of David and Goliath Revealed in London,” The Art Newspaper, 02/28/2020

Ahead of the first major UK exhibition of the work of Artemisia Gentileschi, a London conservation studio has unveiled a painting newly attributed to this best-known female artist of the Italian Baroque.

The large oil on canvas depicts David and Goliath. When the work was sold at Sotheby’s in 1975, it was attributed to Giovanni Francesco Guarneri. However, by the time it resurfaced in 2018 at Hampel Fine Art Auctions in Munich, Artemisia had entered the art historical canon, and the work came under scrutiny from scholars and dealers.

It was reattributed at the eleventh hour to Artemisia, selling for €104,000 to a UK-based collector who wishes to remain anonymous. He engaged the private conservator Simon Gillespie to restore the painting in London — the city in which the work is thought to have been painted in the late 1630s. Gillespie and the Italian scholar Gianni Papi, a Caravaggio and Gentileschi specialist, backed the new attribution of David and Goliath to Artemisia in the latest issue of the Burlington Magazine.

Now, having studied the work in the conservation studio, Papi says cleaning has revealed an original colour palette consistent with Artemisia’s work. Papi identifies the work with an 18th-century account by the art historian and politician Horace Walpole, who wrote: “King Charles [I of England] had several of [Artemisia Gentileschi’s] works. Her best was David with the head of Goliath.”

Gillespie’s restoration also uncovered the faint signature “Artemisia” along the blade of David’s sword. The inscription includes the digits “16-,” presumably the traces of a date that can no longer be read, Gillespie writes in his technical report for the magazine. Such images of strong, vengeful women have often been read in the light of Artemisia’s own biography, which has contemporary resonances in the age of #MeToo.

Aged 17 and already an accomplished painter, Artemisia was raped by an artist acquaintance of her father, Agostino Tassi, who was later tried and found guilty. According to a new biography by the Guardian newspaper’s art critic Jonathan Jones, she was “the most radical of [Caravaggio’s] followers… building brilliantly on his revelation that art and life are doubles of each other”.

“Greasy Scumbags Vandalize Sacred Uluru’s Ancient Aboriginal Rock Art,” Ancient Origins, 03/01/2020

Ancient Aboriginal rock art at the base of Uluru has been vandalized with vegetable oil. Uluru, or Ayers Rock, is the massive natural sandstone monolith standing at the sacred heart of Australia’s Northern Territory’s ‘Red Centre’.

According to an ABC News report, the park’s tourism manager said that about a third of the cave art remains unblemished, with the rest showing markings of oil and scuff marks.
AYMHM, continued

was covered in vegetable oil, partially obscuring the paintings, and police are consulting the national park body with contractors to plan how to best repair the damage.

The cave containing the art fills with water during periods of rain and a viewing platform had been installed above this basin for tourists, which limits how close people can get to the ancient art.

Traditional owner Leroy Lester said the community was discussing its response to the damage. He suggested more education is needed regarding Uluru’s importance and explained that the art tells “creation stories” all around the base of Uluru and they “link to the landscape around Uluru.” This makes them very important to the ancestral people who protect the ancient site.

While a criminal charge looms over the perpetrator(s), Australian police said they don’t yet know who carried out the crime and they couldn’t even begin to guess at this stage why someone used vegetable oil to deface the ancient art.

Meanwhile, the sites traditional owners and Parks Australia are consulting with a Melbourne-based consultant who is very experienced in rock art restoration about how to best restore the paintings without causing them any further damage. So far, the advice they have been given was “to do nothing reactively or quickly” so that the restoration project unfolds in a careful and a considered way.

“Blockbuster Raphael Show Opens in Rome Amid Coronavirus Angst, Conservation Row,” France24, 03/05/2020

An exhibition marking the 500th anniversary of Raphael’s death opens in Rome this week, with experts hailing a once-in-a-lifetime opportunity to admire the Renaissance artist’s greatest works in a single show. But the event’s opening has been marred by the coronavirus outbreak sweeping Italy and a row over a treasured portrait some feared was too fragile to move.

The paintings, drawings, tapestries and sketches on show at the Scuderie del Quirinale are collectively insured for €4 billion. But no amount of money can guarantee that Italy’s outbreak of coronavirus, the largest in Europe, won’t play havoc with the three-month run in Rome of this year’s eagerly-awaited art blockbuster.

The Roman gallery has sold almost 70,000 tickets in online sales even before the doors open to the public, a record for such an exhibition here, but the government battle to halt the infection could yet wreck the event. “I am sure we will never see again such a concentration of works by Raphael together in one venue as we do here,” said Eike Schmidt, the director of Florence’s Uffizi museum which itself offered up nine paintings and 40 drawings.

The entire scientific committee of the Uffizi Galleries has resigned in protest of the museum’s decision to lend Raphael’s portrait of Pope Leo X; the museum loaned it to Rome’s Scuderie del Quirinale regardless. The committee said the portrait of Pope Leo X was core to the identity of their collection and should never be let out of Florence, arguing that the work was too fragile to be moved. Schmidt overruled them, deciding that such an iconic painting deserved to return to the city it was created in.

Now, some 150 years later, researchers have found a new and perhaps unexpected second use for the art: cataloging the historical biodiversity of the region’s fish. The art-meets-science approach could help conservationists track the ebb and flow of threatened and extinct populations in Japan’s past, filling in gaps where other data sets run dry.

Experts agree that the earliest specimens date back to the 1800s, when Japanese fishermen began smearing the flanks of ink-dipped fish on pieces of rice paper labeled with the date, location and species of the catch. Splattered in nontoxic ink, the fish could then be rinsed off and released, sold or eaten as usual.

Over time, they began embellishing the prints with brushwork, adding details omitted by the cruder dip-and-stick method, such as eyes or extra colors on scales.

Rendered directly from the animals themselves, gyotaku prints are, by and large, extremely anatomically accurate—and scientists soon recognized their educational value. Some of the prints may even harbor bits of DNA, helping researchers validate and track the species listed.


Manolo Osuna lacks a formal art education, but he has spent years roaming the galleries of the Prado Museum as a guard and leader of a seven-person moving brigade that hefts national treasures by hand. With that homegrown background, Mr. Osuna, 56, has emerged from an invisible role at the museum to become an unlikely art critic in an Instagram video series that has become a hit.

The videos, shot with a cellphone and selfie stick, have attracted a growing international following of up to nearly 100,000 daily viewers, who are fascinated by the slow-paced, decidedly
un-Hollywood view of the museum.

The creator of the Prado’s Instagram series is Javier Sainz de los Terreros, 37, who never appears on camera but whose soft, anonymous voice guides viewers through the galleries. Beginning in 2019, Mr. Sainz de los Terreros started filming works in the museum without dialogue, and each of the videos appeared on Instagram for just 24 hours. But viewers clamored for more, and so he created the longer, more detailed series of permanent videos now on view.

The videos often feature the unburied, deliberate work of employees such as Elisa Mora, a restoration expert who has been at the Prado for 37 years and is just beginning to contemplate the renovation of a Goya portrait of the Countess of Chinchón. Standing beside the portrait, she points out old patchwork repairs on the back of the painting and explained an X-ray that revealed that Goya had actually painted the face of a man, which he erased by covering it over with the silvery folds of the woman’s dress.

More than 99,000 people watched Ms. Mora’s video on Instagram and 260,000 on Facebook, and many comments praised the quick lesson in the makeover process. On Instagram, Julieta Varela, an Argentine artist, asked for more restoration updates, and an anonymous user called “Museum Nerd” from Colombia — with 200,000 followers — lauded the museum video as “an example of absolute best practices.”

Most of the videos are in Spanish without subtitles, but the museum is working on an alliance with the American Friends of the Prado Museum to create videos in English.

“Ancient Egyptian Mummy Reveals her Secrets to Perth Conservation Team.”
The Courier.co.uk, 03/14/2020

Conservators at Perth Museum and Gallery are carefully cleaning a 3000 year-old mummy Ta-Kr-Hb, nicknamed the Perth Mummy, and her sarcophagus. The Perth Mummy has been resident inside the gallery since the 1930s and now visitors to the museum can watch as conservators carry out their expert work.

The priestess Ta-Kr-Hb – pronounced Taherheb – has been a source of fascination since she was first presented to Perth Museum and Art Gallery in the 1930s. The lower part of the coffin is a forensically rich environment featuring soil, plants and insects.

The conservation team at the museum is confident scientific analysis of these substances, as well as the resin used to cover the bandages, will reveal more about the mummification process and the places her body was kept.

Perhaps the most exciting development so far is the discovery of painted figures on the internal and external bases of the trench. They are representations of Egyptian goddess Amentet or Imentet, known as ‘She of the West’ or ‘Lady of the West.’

The best preserved of the two paintings is on the inside of the coffin and had been hidden by Ta-Kr-Hb’s body. It shows the goddess in profile, looking right and wearing a red dress. Conservators Helena and Richard Jaeschke have been working closely on the project with the Culture Perth and Kinross’ Conservation in Action team.

“Thyssen-Bornemisza Museum Restores Canaletto’s ‘The Piazza San Marco in Venice!’” ArtDaily Newsletter, 03/17/2020

The Thyssen-Bornemisza Museum has completed the technical study and restoration initiated more than a year ago of Canaletto’s painting ‘The Piazza San Marco in Venice.’

This project was crowd-funded using “micro-sponsorship”, which raised the required 35,000 Euros in barely four months. The painting was divided into 1,000 sections, each with a symbolic value of 35 Euros, which was the minimum contribution and which allowed many people to contribute by acquiring a “little piece of Canaletto’.

Painted between 1723 and 1724, The Piazza San Marco in Venice is one of the few works by Canaletto in a Spanish museum and one of the most representative of his style and finest quality.

The procedure undertaken by the museum’s restoration team has principally consisted in returning the painting to its original state as far as possible, removing earlier restorations and various layers of oxidised varnish. The painting was relined at an unknown date and its original size was altered, with around 2cm of the canvas folded over the stretcher at the top and another 2 cm added at each side.

The final result has revealed the morning light and subtle nuances that Canaletto gave to his work. Images obtained with X-radiography have provided interesting information on Canaletto’s working method.

Particularly notable are the marks left by the pair of compasses which the artist used to position the four decorative arches on the upper part of the bell tower, with a corresponding hole in the centre of each one and the incised line of each curve. While the use of this instrument by painters was not unusual, its employment on top of the paint layer is striking.

The similarity between the painting’s orthogonal and the real image of the Piazza allows us to assume that Canaletto used a camera obscura in order to translate the different architectural elements onto his canvas. Nonetheless, the perspective that he created is not based on a direct image but on the manipulation of different viewpoints obtained in the Piazza in order to create a theatrical space that is more enclosed than the real one, in the manner of a stage set.

“Work on Notre-Dame in Paris Halted by Coronavirus,” ArtDaily Newsletter, 03/17/2020

French authorities halted restoration work on the fire-ravaged Notre-Dame cathedral in Paris on Monday as the country braces for additional
measures to contain the spread of the coronavirus.

Workers at the historic landmark in the centre of the French capital had been dismantling the molten metal scaffolding around the church’s spire, which collapsed in the catastrophic blaze last April.

Officials said decontamination measures set in place to deal with danger from the huge quantities of lead that melted in the fire were incompatible with rules set down to deal with the coronavirus.

“Met Museum Prepares for $100 Million Loss and Closure till July,” The New York Times, 03/18/2020

In a powerful sign that casualties of the coronavirus outbreak include even the country’s strongest cultural institutions, the Metropolitan Museum of Art is projecting a total shortfall of close to $100 million for the near future and expects to be closed until July, according to a letter the museum sent to its department heads on Wednesday.

The Met is an important canary in the coal mine for arts institutions all over the country; when the museum announced on March 12 that it was closing, others followed close behind. If even a behemoth like the Met — with an operating budget of $320 million and an endowment of $3.6 billion — is anticipating such a steep financial hit, smaller institutions may not be able to survive at all.

According to Laura Lott, president and chief executive of the American Alliance of Museums, about a third of museums surveyed in the United States were operating in the red or close to it before coronavirus. Three-quarters have now closed, and one-third will not reopen if the crisis continues.

The Met, preparing for its own financial hardship, has developed a three-phase response: having all staff members work from home and continue to be paid through April 4 as the museum evaluates possible furloughs, layoffs and voluntary retirements; from April to July, evaluating how to control spending and reduce operating costs, including freezing discretionary expenditures and hiring; and from July to October, “reopening with a reduced program and lower cost structure that anticipates lower attendance for at least the next year due to reduced global and domestic tourism and spending.”

The Met, which estimates the overall damage from the virus will be spread over this fiscal year and next, is also creating an emergency fund of more than $50 million by reallocating discretionary resources usually used for acquisitions and programming toward operating expenses, fund-raising from foundations and donors and pursuing government assistance.


Twelve years after the city of Basel, Switzerland, rejected a claim for restitution of 200 prints and drawings in its Kunstmuseum, officials there have reversed their position and reached a settlement with the heirs of a renowned Jewish museum director and critic who sold his collection before fleeing Nazi Germany.

In 2008, the museum argued that the original owner, Curt Glaser, a leading figure in the Berlin art world and close friend of Edvard Munch, sold the art at market prices. The museum’s purchase of the works at a 1933 auction in Berlin was made in good faith, it said, so there was no basis for restitution.

But after the Swiss news media unearthed documents that shed doubt on that version of events, the museum reviewed its earlier decision and today announced it would pay an undisclosed sum to Glaser’s heirs. In return, it will keep works on paper estimated to be worth more than $2 million by artists including Henri Matisse, Max Beckmann, Auguste Rodin, Marc Chagall, Oskar Kokoschka, Ernst Ludwig Kirchner and Erich Heckel. Among the most valuable pieces are two Munch lithographs, “Self Portrait” and “Madonna.”

The turnaround is a major victory for the heirs but also a sign, experts said, of a new willingness on the part of Swiss museums to engage seriously with restitution claims and apply international standards on handling Nazi-looted art in public collections.

“Switzerland was neutral during the war, but it was a marketplace for art,” David Rowland, the New York lawyer representing Glaser’s heirs, said. “It is now making great progress in coming to grips with these cases. This is a big step forward.”

“Philly Museums and Med Students Band Together to Donate Protective Gear to Front-line Health-care Providers”, The Philadelphia Inquirer, 03/30/2020

In the scramble to find PPE — personal protective equipment, an acronym unknown to most just a month ago — some unexpected groups have stepped up with donations to help out the area’s hard-pressed hospitals, all of which say they are running critically short of protective gear.

Museums and art schools, it turns out, use PPE virtually daily in their conservation departments and to care for and create artworks. When officials at Moore College of Art and Design heard about hospital shortages of such things as N95 respirator masks, gowns, and gloves they knew they could help. Moore’s cache of 200 N95 masks and 250 gowns will be going to Thomas Jefferson University Hospital, where the school sends ill or injured students in normal times.

At the University of Pennsylvania Museum, officials knew they had a stockpile of PPE stashed away. “The head of conservation went down into the museum’s basement storage “and basically gave them everything,” said a museum spokesperson. As a result, the Hospital of the University of Pennsylvania (HUP) has received a powered air-pressure respirator, used by the museum in laser decontamination, welcomed.

In the cool morning
I fry up a slab of Spam
A dog barks next door

Pink tender morsel
Glistening with salty gel
What the hell is it?

The color of Spam
is natural as the sky:
A block of sunrise
cleaning, plus 50 boxes of nitrile gloves, goggles, safety glasses, four boxes of N95 mask respirators, and one box of 8210 respirators.

Charlotte Tisch, a first-year med student at Penn, studied Egyptian archaeology in college and was well-aware that art museums would most likely have supplies of PPE. She hit pay dirt at the Philadelphia Museum of Art, the Barnes Foundation, and the Pennsylvania Academy of the Fine Arts. These institutions contributed a significant supply of masks, respirators, gloves, shoe covers, and Tyvek suits to front-line health-care workers at HUP.

As of last week, the students had solicited and delivered more than 5,650 face masks, 1,700-plus N95 respirators, more than 380 face shields and safety glasses, more than 500 boxes of gloves, and 1,100 pairs of sterile surgical gloves.

“All the departments’ funding went toward this, and they were all contributing for this mural to happen as a permanent installation,” Numina said, were told that the painting would be removed.

“All the departments’ funding went toward this, and they were all contributing for this mural to happen as a permanent installation,” Numina said. Natalie Bourdon, department chair of both anthropology and women’s and gender studies, wrote that removing the mural is “absolutely unconscionable and the epitome of whitewashing.”

Bourdon, along with associate professor of art Craig Coleman, approached Numina about the mural back in 2017. Sanaa Yusuf is a sophomore who took Bourdon’s Applied Social Justice course as a freshman. “To say that the mural on campus that commemorates Black history was only temporary and a pop up project in and of itself is disrespectful,” they said. “They quite literally painted over Black history.”

Mercer responded briefly to the backlash. “Mercer Village mural was commissioned and funded by the College Hill Corridor Commission several years ago as a ‘pop-up’ public art demonstration project,” Mercer administrators said in a statement released to local news outlet 13WMAZ. “It was never intended to be permanent.” In an email to The Cluster April 30, Director of Media Relations Kyle Sears said that statement “is all that will be provided at this time.”

“A year after the devastating fire at Notre-Dame cathedral in Paris, Germany has put forward concrete proposals for its role in the reconstruction including funds from the government and donors and expertise in stained glass and cathedral restoration.

A fund-raising campaign launched in Germany a day after the fire has raised more than €450,000 according to a statement issued by Armin Laschet, the prime minister of the state of North Rhine-Westphalia, and Culture Minister Monika Grütters. “The reconstruction of Notre-Dame offers an opportunity to become a European symbol of hope,” Laschet said. “For me this reconstruction is also a symbol of German-French friendship.”

Germany’s contribution is to be coordinated by Barbara Schock-Werner, formerly the official in charge of conservation at Cologne Cathedral, the statement said. “German cathedrals’ glass workshops can offer real help,” Grütters said.

The exact scope and nature of Germany’s contribution will be determined in the coming months on the basis of studies on the ground, the statement said, adding that three glass workshops at German cathedrals have the extensive expertise and experience necessary to undertake the restoration of the clerestory windows. Germany would cover the costs of restoring the upper windows, Grütters said.

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and chemically benign. Some of its advantageous properties stem from its gelation mechanism. A PVA hydrogel can be solidified simply by freezing and thawing a solution of PVA in water.

As ice crystals in the mixture grow and expand, they press the PVA molecules closer together. And by some mechanism that’s not totally clear, that compression is enough to lock adjacent PVA chains together permanently.

A PVA hydrogel is soft enough to drape over the peaks and into the troughs of a rough painted surface. It is not, however, effective at cleaning. The problem, Baglioni and colleagues hypothesized, is the gel’s pore structure. Ice crystals in PVA grow long, thin, and straight, so the hydrogel is thus honeycombed with narrow, parallel pores—hardly ideal for fluid mobility and dirt pickup.

It’s known that a PVA gel’s properties can be tuned by repeating the freeze–thaw cycle more than once. But repeated cycling also makes the PVA walls a bit thicker and thus more rigid—exactly the opposite of what the researchers wanted.

Baglioni’s pivotal idea was to try making a hydrogel out of a mixture of PVA molecules of two different lengths. As a watery mixture of long- and short-chain PVA is cooled, the short polymers become insoluble before the long ones do. The difference in miscibility would push the short- and long-chain molecules to phase separately, but their sluggish motion would keep them at least partially intertwined.

The resulting tangle, Baglioni reasoned, must have some effect on the size and shape of the ice crystals and thus on the gel’s pore structure.

That effect turned out to be surprisingly dramatic. The twin-chain PVA gel, as it’s come to be known, looks more like a sponge. When tested on a mock painting, the twin-chain gel proved excellent for cleaning. What is it about the sponge-like structure that makes it so good for cleaning? Baglioni and colleagues aren’t sure, but they suspect it has to do with the ease with which the gel both releases fluid and reabsorbs it.

As the gel rests on the soiled painting, water gradually evaporates from its upper surface. To compensate, water from the lower surface gets pulled through the interconnected pores into the gel bulk—and the dirt from the painting gets pulled with it. Dirt particles are more reliably removed when they’re lodged in the gel’s pores rather than clinging to its surface.

“But this is all still a hypothesis,” says Baglioni. “We were working on testing it when the coronavirus hit.”

Beyond demonstrations on mock-ups, the twin-chain PVA gels have already been used to clean real works of art. In collaboration with conservators at the Peggy Guggenheim Collection, the Florence researchers used their gels to restore two Jackson Pollock paintings, Two and Eyes in the Heat, to their original 1940s glory. Both paintings have rough surfaces that were difficult to clean.

Baglioni’s group has also collaborated with Bronwyn Ormsby, the principal conservation scientist at Tate, to clean Whaam!, a large two-panel painting by Roy Lichtenstein that the gallery bought in 1966. As with the rest of Lichtenstein’s comic-book-inspired pop art, the surface of Whaam! isn’t especially rough, although its cotton canvas has a texture to it. The main cleaning challenge it poses is Lichtenstein’s use of three kinds of paint, each with its own chemical properties and distinct finish to maintain.

A version of Baglioni’s new PVA gel—frozen and thawed a few more times to give it different mechanical properties—proved the best tool for the task. “Each work of art degrades in a different way and needs different conservation,” says Baglioni. “With different tiny modifications, our versatile family of gels can address many needs.”

“Gainsborough’s Newly Restored Blue Boy Awaits the End of Lockdown,” The Art Newspaper, 05/11/2020

After months in the conservation lab at the Huntington Library, Art Museum and Botanical Gardens, in San Marino, California, Thomas Gainsborough’s The Blue Boy (around 1770) is ready to go back on display, although the galleries are closed because of the coronavirus (Covid-19) pandemic until at least 15 May.

In the meantime, the museum has posted a video about the restoration on its website. The project began in 2013, when Christina O’Connell arrived at the Huntington as the institution’s first ever paintings conservator. She undertook a full survey of the museum’s art collection, examining around 600 paintings to assess their physical condition.

In 2017, O’Connell and Melinda McCurdy, the associate curator for British art, closely studied the work using the latest technologies, including infrared reflectography and multiple high-resolution X-rays that were digitally stitched together. The painting needed considerable work, given its flaking paint, darkened varnishes and structural weaknesses.

One surprise was an early 11-inch tear in the lower left side of the canvas, which was revealed through the X-rays. Fortunately, says O’Connell, the tear was so well mended that she did not need to repair it again, but she did have to remove some earlier overpainting to reveal Gainsborough’s brushwork.

O’Connell spent a year and a half working on The Blue Boy, including 12 months in public in the Thornton gallery, where she sat in a mini-lab behind a small exhibition that attracted more than 217,000 visitors.

O’Connell started the conservation work by gluing down flaking paint and then undertook a thorough cleaning. Slowly, she uncovered a brighter blue in the subject’s outfit—thought to be a costume for a ball—and details in the landscape on the lower left side that had darkened over the years.

Last autumn the painting was brought into her lab for the finishing touches. O’Connell says she is pleased with how the conservation has gone, remarking that few visitors will notice what she has done. “I’ve done my job when it’s invisible,” she says.