



CONSERVATION
PERSPECTIVES
THE GCI NEWSLETTER

FALL 2012
CONSERVATION OF PUBLIC ART



The Getty Conservation Institute

A Note from the Director



Public art punctuates our surroundings. It reminds us of important moments in history, and it honors the fallen. It makes us smile in parks and squares and captures our attention in underpasses and stations. Unlike its privileged cousins housed in the controlled confines of art museums, public art contends with the world at large—cars, people, graffiti, censorship, ice, birds, and sun. All of these factors have considerable implications for art in public spaces, which is the focus of this issue of *Conservation Perspectives*. How can conservators, and the others responsible for its care, be the best-equipped stewards of art in the public realm?

At the Getty Conservation Institute, we have been working for many years on conservation issues presented by public and outdoor art. The conservation of *América Tropical*, a monumental 1932 outdoor painted mural by David Alfaro Siqueiros in downtown Los Angeles—and its lessons generally for outdoor mural conservation—has been a long-term project of the Institute. We worked closely with our Getty Museum conservation colleagues as they

prepared and conserved the Fran and Ray Stark Collection—the Museum’s own collection of outdoor art. Finally, as part of the GCI’s Modern and Contemporary Art Research initiative, we have been researching the problems of outdoor painted surfaces, including sculptures and murals, seeking a better understanding of the properties and behaviors of paints used for twentieth- and twenty-first-century outdoor painted artworks. Our purpose in these efforts is to establish ways that conservation professionals can improve the preservation of art in outdoor places.

The feature article in this newsletter edition is authored by two professionals who have grappled with the complications related to the care of outdoor public art. In their article, Rika Smith McNally and Lillian Hsu—respectively, the conservator of public art and the director of public art for the Cambridge Arts Council in Massachusetts—explore some of the challenges they confront as they care for public art in the face of “the serendipity and disorder of human activity, the unknowns of accelerating technology, the power of climate, and the reliable march of decay.”

Our other articles take a closer look at conservation issues related to some specific works of public art in a range of materials. In her article, Leslie Rainer, a GCI senior project specialist, recounts the difficult preservation journey of *América Tropical*, which, after years of neglect, became the focus of a GCI/City of Los Angeles project to conserve, protect, and make publicly accessible this significant work of public art. Modern art conservators Lydia Beerkens and Frederike Breder examine some of the conservation challenges associated with composite plastic fiberglass-reinforced polyester, a medium popular with artists in recent decades but one that poses particular technical and philosophical questions with respect to conservation treatment. Sculpture conservator Andrew Naylor describes the treatment decisions made on several historic monuments in Dublin, where threats to monuments over the years have run the gamut from bird droppings to damage from political violence. Finally, we round out our examination of public art with a conversation with two public art administrators and a public art conservator about the broad range of considerations that go into the creation and care of art located in public spaces.

Without question, public art enriches our experience of our communities, at its best prompting us to pause and reflect, as well as enjoy. While public art may pose myriad conservation challenges, its enhancement of civic life more than justifies the effort.

A handwritten signature in black ink, appearing to read 'T. Whalen', with a long, sweeping underline.

Timothy P. Whalen

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Detail of *Olympic Iliad* (1984) by Alexander Liberman, in Seattle, Washington. The work, constructed of painted steel, was commissioned by the Seattle Office of Arts and Cultural Affairs, with funding from the Seattle Center One Percent for Art Bond Issue, the Seattle Center Foundation, and private donors. Photo: Amy Louise Herndon.

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CONSERVATION OF CONTEMPORARY PUBLIC ART

BY RIKA SMITH MCNALLY AND LILLIAN HSU

The materials of the public artist long ago moved beyond bronze, marble, and stained glass. Contemporary artists do not hesitate to dip into the pockets of the material, cultural, or technological worlds to retrieve something that sparks their imagination or serves a desired effect. Public art collections reflect the growth of electronic art and socially integrated design that continues to expand the artist's palette and the artist's role in the public sphere. We encourage our public artists to experiment, even as it complicates the challenge of ensuring that public art endures. In this early part of the twenty-first century, *endurance* is a word indefinitely defined.

The urban realm is a complex environment full of unpredictable activities that exert their forces on even the simplest of objects. A city is a lively, active world with an intense level of usage. Weather, ultraviolet light, little security, and pollution are also part of the public art collection's reality. Confronting these elements is the public artist, who has an aesthetic vision that must be realized in an environment that is simultaneously physical, social, and political. Public art has always been about collaboration, but in addition to the artist-and-patron relationship, contemporary public art includes collaboration with the general public, arts administrators, architects, engineers, city planners, landscape designers, fabricators, and art conservators. Assisting both the artist, who must choose materials that will satisfy a concept within a budget, and the arts agency, which must maintain an art collection for the continued benefit of the public, is the art conservator, who serves as a materials guide, combining scientific concepts with the physical care of art.

The conservation and maintenance of public art exist where the desire for control and the desire for freedom intersect, mirroring the tension throughout our culture between the

urge to preserve memory and history and the value we place on freedom of expression and living in the moment. Our public spaces are shaped by intricate planning that entails a purposeful arrangement of physical elements and an attempt to balance guarantees of endurance with inspirational vision.

Caring for public art in these intricate circumstances is complicated. We are in constant motion, juggling contradiction, high expectations, ignorance, and a disparate set of goals. One practices the maintenance of public art in the midst of the messy, tangled world of urban life. The serendipity and disorder of human activity, the unknowns of accelerating technology, the power of climate, and the reliable march of decay sometimes make us seem like fools. Who are we to think we can predict the outcome?

THE CAC PROGRAM

The Cambridge Arts Council (CAC) in Cambridge, Massachusetts, has been contending with these challenges since 1979, when the Cambridge Public Art Ordinance was created, and the CAC began commissioning public art for capital improvement projects. In 1996 our Conservation and Maintenance Program was initiated, and it continues to this day, providing professional care to our collection of over one hundred works of art, many with multiple parts. They are integrated into the built landscape and sited throughout the neighborhoods of Cambridge. At the CAC, the conservator acts as informer and planner, advocate and facilitator, and budget estimator, in addition to coordinating routine maintenance and treatment. The CAC's conservation work is truly interdisciplinary, based on numerous communications and conversations between many departments as we plan and care for the public collection.



Yerxa Road Underpass (2006) by Randal Thurston, in Cambridge, Massachusetts. The conservation issues faced by this work of concrete, ceramic tile, and painted steel typify those of public art. Its ceramic tunnel walls have been repeatedly tagged with graffiti. In 2010, due to failure of the original paint system, the trellis was removed and repainted. Here George Hagerty and a team from the USArt Company reinstall the trellis. Photo: Rika Smith McNally.

The CAC conservation program is built on three basic components: assessment, maintenance, and treatment. Each of these endeavors is governed by the conservation profession's best practices in documentation, including writing and photography, design drawings, and video. Constant record keeping of materials facts and care directions, as well as of conversations and artist interviews, is critical.

We approach the conservation needs of the public art collection, as well as of individual artworks, in the same way we approach the needs of artworks in a museum—with care, discussion, and planning. The care of contemporary public art requires equal vigilance in assessment, preventive measures, conservative procedures, and detailed documentation. At the same time, the conservation of public art may be different from museum conservation in the need to be nimble: hail and strong winds may require immediate action, and a truck plowing through bollards and hitting a fountain certainly does.

In addition to the three basic components of assessment, maintenance, and treatment, a fourth and critical part of con-

temporary public art conservation is prefabrication conservation reviews. We have devoted the most time to this practice in the last few years. A prefabrication review provides information on the artist's intent, material choices, technology updates and replacement, fabrication techniques, and installation methods. It also establishes a clearly written long-term maintenance plan, including the artist's and the commissioning agent's discussion of expected longevity. The reviews are not an attempt to judge the physical acceptability of a proposed artwork but, rather, are a way to inform all involved in the process and to discuss materials or methods improvement and future ongoing maintenance. The reviews can also be used to clarify the definitions of *permanent* versus *temporary* (isn't most urban planning actually transitory?) and prepare maintenance budgets. We talk to the artists about their work—from their initial response to the project to their fully developed structural vision—as well as about installation challenges; their thoughts about surface color, texture, and sheen; and their hopes for how the public will encounter, question, and appreciate their art.

THE HUMAN FACTOR

In a recent gathering of heads of various departments meeting to review our conservation and maintenance budget, the conversation turned to one of our public artworks, a bus shelter designed by Taylor Davis. Davis's sculptural shelter is constructed of fifteen narrow eight-foot-tall panels of rose-colored glass held in measured rhythm by aluminum framing within a unique four-sided structure. A long wooden bench is set half inside and half outside the shelter.

During the work's planning process, maintenance concerns were mostly about graffiti, which everyone expected. Since the rose color was achieved by laminating a rose-tinted film between two pieces of clear glass, the surface of the panels would be relatively easy to clean. The piece, which was installed in 2006, was majestic and luminescent. Yet barely six months had passed before eight of the fifteen panels were smashed, and the cycle of breakage and replacement continued. Each panel costs approximately \$800 to replace. Although common wisdom says rapid repair discourages further vandalism, these custom glass panels could not be replaced quickly. With the Conservation and Maintenance Program's annual conservation and routine maintenance budget of approximately \$30,000 for a growing collection of over one hundred works of art, the shelter was becoming unsustainable within our means. Possible solutions under discussion with the artist include moving the artwork to a different neighborhood, replacing the custom rose-colored panes with standard

colored glass, or removing the artwork and extending the concept of rose-colored glass to other commercially made city bus shelters when their glass panels need replacing.

Everyone around the table knew of the repeated damage. Then someone said, "Public art doesn't last in North Cambridge." Another artwork a half mile away was mentioned—Randal Thurston's *Yerxa Road Underpass*, also completed in 2006. Using silhouetted motifs of butterflies, birds, and trees, Thurston's artwork adorns two 150-foot north and south ramp walls, two portals, and a 50-foot tunnel lined with ceramic tiles, into which the artist designed sandblasted and painted images of butterflies. The ceramic tunnel walls are repeatedly tagged with graffiti. Tagging includes references to rival gangs, as well as students' attempts at humor and "coolness." Admittedly, it is a long pedestrian tunnel under railroad tracks that cannot be seen from any surrounding house, but it is also a well-loved and well-lit work of public art that enhances a busy thoroughfare for people on foot and on bicycle, linking two dense residential areas.

The comment in the meeting that day was about a set of individuals and their particular culture, demonstrated in a particular public space in a particular neighborhood. The repeated actions of a few were powerful enough to cause an attribution of character to a whole neighborhood. Was this a site condition like winter heaving, acid rain, or truck exhaust? We would have to say yes—particular, repeated human behavior is a site condition.



Galaxy Dancefloor / Turnaround Surround (2004) by Mierle Laderman Ukeles. The work—located in a Cambridge park—is made from recycled rubber and cast stone blocks. Sometime after this photograph was taken, the artist chose (after conferring with the conservator) to alter the white blocks because of an accumulation of dirt, staining, and graffiti; the blocks were painted black with a concrete stain. Photo: Rika Smith McNally.



Above: *Beach Fragments* (1986) by David Phillips, a cast silicon bronze artwork situated in a Cambridge park. Conservation technician Nichole Speciale waxes one of six inlaid medallions as part of the annual routine maintenance program. Regular maintenance is critical to the care of public art. Photo: Rika Smith McNally.

Right: Detail of graffiti on *Stonework* (1980), another artwork by David Phillips. Outdoor bronzes in the Cambridge Public Art Collection are washed and waxed annually, making graffiti removal easier. Photo: Rika Smith McNally.



In another neighborhood several years ago, the residents expressed a complete reversal of opinion about an artist's proposal, which had gone through the standard public approval process. Residents were prepared to hold up construction of their new street unless we rescinded the public art. In an unprecedented move, we had to withdraw the project. Weeks later we encountered one of the residents in a local shop, and with an apologetic smile, he expressed his regrets that the artwork had not worked out but then offered the explanation "We're just philistines." Human behavior, sometimes rooted in attitudes and beliefs about art and public space, can be the most elusive site condition to address, but it remains an ever-present variable in our conservation efforts.

SUCCESES AND CHALLENGES

We have had many successes planning and caring for our public art collection through an effective routine maintenance program that benefits from our close relationship with the Department of Public Works and other city departments. By using high-performance paint systems, we have prevented the fading of paint on outdoor painted steel and have been assured of reduced galvanic corrosion with the use of better-matching alloys. Our protective coatings on bronze and murals make graffiti removal easier. Our

city manager recognizes and approves of what we do. We are a small line item in the city's budget, but our budget is consistent. Our public artists are appreciative of the information and assistance we can provide, and they ask for help and support early on.

We have also experienced failures and continue to meet many challenges. On occasion, contractors or fabricators have substituted materials to the detriment of quality, and installations have not gone as well as planned. Persistent graffiti has tested our ability to keep up with removal. Only eight years ago, the web page for our Conservation and Maintenance Program stated that vandalism to public art was a rarity in Cambridge. Sadly, we had to remove that assertion from the website. When a local hardware store has a sale on spray paint, we know there will be an increase in tagging with these ready supplies, and we ask store owners to remove buckets of spray cans and sale signs from the sidewalks. We have followed specific taggers, photographing their work and locations, and have sometimes visited schools and youth centers to identify residents with a reputation for tagging. As we grapple with the chemical as well as social issues of graffiti, another layer of dialogue must continue among all who care about public spaces—a conversation that



Love by Robert Indiana, located on a busy corner in New York City. This is perhaps Indiana's best-known sculpture. Versions of this work (first made in 1970) can be found in a wide variety of public spaces throughout the world. Photo: © Hu Totya. Reproduction with permission of Artists Rights Society (ARS), New York.

addresses the conflict between an ideal of support for a variety of artistic means of expression, an opportunity for public commentary, the taggers' demands to be noticed, and the belief in civic responsibility and a shared respect for public and private space.

Electronic art is a fast-growing component of our collection and of artist proposals. Video, lighting, sound, cell phone apps, and the needs of changing software require a different kind of care than washing and applying protective coatings. These newer media present a new set of challenges—they are a flourishing addition to the public artist's resources but one that requires management on a case-by-case basis. Constantly evolving technologies require the skills and knowledge base of specialized technicians and new-media archivists, and we realize we need added funds for electronic art preservation consulting.

Percent-for-art programs and public-private commissions often offer barely enough money for design, fabrication, and installation, and it is very rare for an artwork to come with maintenance funding or even with a written understanding of how long the object is meant to last or how to care for it. The biggest obstacles we see for the conservation of public art are the lack of communication between professional disciplines and a serious lack of funding. Engineers, landscape designers, city officials, and the public need to understand what good conservation practice is, and it is important that they understand that maintenance is a routine and necessary part of a public art collection. Our conser-

vation technicians carry out maintenance and are often thanked by residents and passersby, but many think they are volunteers and do not appreciate the training and oversight we provide.

With every public art project, we talk with artists about choices that can prevent or slow deterioration, such as best materials, fabrication processes, and installation methods. Artists need freedom to experiment with ideas and to use materials expressively. We make decisions based on laws of safety and access, predictability of materials, the known habits of the public, and the budget, but once the fences come down and the contractor leaves, the space returns to the people, and life happens.

Furthering the complexity of conservation is the increasing erasure in many projects of any observable difference between the social and physical attributes of an artwork and those of its site. In many cases, an artist's work becomes indistinguishable from the work of other disciplines, except for the ideas the artist brings to the project. When an artist chooses the pavers to go down an alley or plans the colors to accent a bridge or garage railing, the preservation of those aesthetic selections is within our jurisdiction but requires the services of our Department of Public Works or of a commercial cleaning crew, and we are often not even present when preservation action is taken. When artists propose long-term social programming as public art—such as directing a school to implement student projects for the yearly collection of rainwater, calling for the harvesting of crops by residents, or



Enteractive (2006) by Electroland. This work in downtown Los Angeles consists of interactive LED tiles that respond to the presence of visitors. Electronic art is a fast-growing component of public art, and these newer-media works present conservation challenges different from those encountered with traditional media. Photo: © Electroland.

creating other community activities based on an artist's instructions—the character of our efforts to maintain the artists' intent is very different from simply scheduling washing and waxing.

PUBLIC ART, PUBLIC SPACES

A vibrant urban environment holds myriad hazards for public art. A wealth of activity, a density of needs, and the limitations of resources all demand our attention. The process of bringing an integrated and site-responsive work of art to realization and endurance has no clear road map.

What can we do to advance the conservation of public art? The conservation field needs to recognize and support the growing number of conservators who specialize in public art. Such support could be manifested in a number of ways, including establishing electronic networks specifically for those working with public art, hosting conferences (or sessions within established conferences) that focus on public art conservation, and encouraging training and publication in the care of public art. Because increased communication between public art conservators and allied professions is critical to the field's advancement, we should continue to advocate for the exchange of knowledge and experience within the discipline, as well as with other related fields, such as museum studies, curatorial practice, urban planning, architecture, engineering, and material science.

Cultivating close ties to prominent public artists is another

important way to build an appreciation of conservation, so that they can speak for the critical role that conservation plays in planning and preserving public art. Interdisciplinary conferences, exhibits that focus on the relationship between artists' materials and conservation, and public dialogues further engage a variety of audiences through multiple formats. As conservators, we must continually define and redefine the terms and intentions of our practice and ask questions. What is permanence? When does change trump preservation? To what extent do we allow experimentation? Not only do we need to do this for our field, we need to do it for our audiences.

Our public spaces are critical to a civic life that honors and celebrates our humanity and history and responds to cultural and political change. Residents and visitors—diverse in culture, age, and interests—seek the freedom to move about and use public space spontaneously and for a wide range of purposes. While the ways in which the weather and the public might interact with works of art are never entirely known or predictable, conservation is an essential component of ensuring that public art continues to enrich our environment, prompts us to ask questions, and feeds our imaginations.

Since 1998, Rika Smith McNally has been involved in the care of the public art collection of the Cambridge Art Council in Cambridge, Massachusetts; in 2010 she became a permanent staff member as conservator of public art. Since 2006 Lillian Hsu has been the director of public art for the Cambridge Arts Council, where she manages the city's Percent-for-Art Program. She is also a sculptor and installation artist.



THE RETURN OF *AMÉRICA TROPICAL*

BY LESLIE RAINER

ON OCTOBER 9, 1932, DAVID ALFARO SIQUEIROS COMPLETED HIS MONUMENTAL MURAL *AMÉRICA TROPICAL*, on the second story of the Italian Hall on Olvera Street in downtown Los Angeles. The mural, commissioned by La Plaza Art Center, was intended to depict a romanticized view of tropical America, a land of plenty, with fruits falling into the hands of the people. Siqueiros, a political activist and revolutionary artist, instead painted a scene of Maya ruins, with a central, crucified Indian figure. An American eagle looms above him, while two sharpshooters take aim at the eagle from nearby.

The mural was controversial from the moment it was unveiled, and the scene with the sharpshooters, which could be seen from Olvera Street, was whitewashed within a year. By the end of the decade, the entire mural had been whitewashed. Censored, then neglected and largely forgotten, *América*

Tropical was only rediscovered in the late 1960s, and it soon became a touchstone for the Chicano mural movement.

In the early 1990s, the Getty Conservation Institute and the City of Los Angeles conceived a project to conserve, protect, and make publicly accessible *América Tropical*. The coordination, design, and implementation of the project lasted over twenty years, and in October 2012, on the eightieth anniversary of its original unveiling, the GCI and the city reopened the mural to the public.

During the project, a multidisciplinary team of conservators, scientists, architects, engineers, and exhibit designers faced a number of challenges. First were the scientific analysis and conservation treatment of the badly deteriorated mural. In addition, a shelter for the mural that would protect it from the elements and provide optimum viewing conditions needed to be designed and engineered; along with the shelter, the project required a platform to allow viewing of *América Tropical* by the public. Due to the location of the mural in a historic district, a public approval process was also necessary for the

América Tropical during final conservation. The canopy protects the mural from direct sunlight, rain, and wind (the tarps were a temporary protection until a roll-down screen could be installed). The conservation team stabilized plaster and paint, reduced stains, and carried out minimal reintegration to reinstate the legibility of the mural. Photo: Leslie Rainer, GCI.



design of these elements. Finally, the design and installation of an interpretive center were critical for providing information about the mural, as well as placing it in the context of Siqueiros's life and work.

CONSERVING AMÉRICA TROPICAL

Efforts to conserve the mural began in the late 1960s with art historian Shifra Goldman. In 1971 Goldman recruited filmmaker Jesus Treviño to make a documentary film about *América Tropical*. For that film, Treviño brought two conservators from Mexico to examine the mural and propose a treatment. The conservators concluded that because of the mural's overall deterioration, it could not, and should not, be restored to its original color; rather, it should be stabilized and conserved in its current state. Siqueiros, then living in Mexico City, was consulted, and he proposed re-creating the mural on portable panels. Siqueiros actually began work on these panels in his studio, but he was unable to complete them before he died in 1974.

In 1977 Jean Bruce Poole, a curator at El Pueblo de Los Angeles Historical Monument (the city entity that oversees Olvera Street), joined Goldman in an effort to preserve the mural. Together they brought in additional experts to examine *América Tropical* and built a series of shelters to protect it while funds were sought for its conservation.

In 1987 Poole and Goldman approached the GCI to conduct materials analysis on the paint and plaster used on

América Tropical. Following this study, a weather station was installed to monitor conditions at the site and to assess the possible adverse effects of light and atmospheric pollution on the mural. These studies laid the groundwork for the GCI to develop a comprehensive plan for the mural's protection, conservation, and presentation. At the same time, an interpretive center was conceived that would provide information on the mural and its artist.

The first phase of conservation was carried out in 1990 by a team of conservators led by Agustín Espinosa from Mexico; two other treatment campaigns, in 2002 and 2012, have followed. Since the visit of the Mexican conservators in the 1970s, there has been a consensus among the interested parties that the guiding principle for the conservation of *América Tropical* should be to preserve the history of the mural and the original paint, retaining the authenticity of the artist's hand. The original materials that remain are a testament of the revolutionary fresco painting technique that Siqueiros was developing in Los Angeles at the time, a technique that formed the basis for some of his later innovations on murals in Mexico and South America.

Conservation has also aimed to preserve the story of *América Tropical*, its controversial subject matter, its whitewashing, neglect, and eventual exposure over decades. The current state of the image—which is much fainter than when originally painted—is a result of these factors. Therefore, any significant repainting or restoration would, to a large degree, erase the

history of the mural. With this in mind, the GCI's treatment of the mural focused on cleaning, consolidation, plaster and paint reattachment, tar and stain removal, filling of losses, and minimal aesthetic reintegration. In addition to the completed treatment, the project to conserve *América Tropical* also includes long-term monitoring and maintenance, to which the GCI is committed for the next ten years.

PROTECTING THE MURAL

Integral to the *América Tropical* project was the design and construction of a shelter to protect it. The objective was to shade the mural from direct sunlight, keep rain off, and give visitors an optimal viewing experience.

Several plans for a shelter were explored. The final design, by Brooks + Scarpa Architects (formerly Pugh + Scarpa), is a fabric-wrapped structural steel canopy with a roll-down screen that protects the mural when the site is closed to the public. The canopy spans the entire eighty-foot length of the mural, allowing for an unobstructed view from the nearby viewing platform.



Conservators testing solvent gels to reduce and remove tar stains. Tar, which was applied to the wall, caused extensive damage along the wall's base. Part of final conservation was removing or reducing remaining tar and tar stains. Photo: Stacey Rain Strickler, for the GCI.

The sheer weight of the canopy, over seventy thousand pounds, required that load-bearing columns extend through the foundation of an adjacent building. An additional complication was encountered when archaeological investigations revealed that the proposed columns were positioned directly above the location of the *zanja madre*, an underground brick aqueduct from the original water system for El Pueblo and Los Angeles that dated from the early nineteenth century. The columns were engineered to prevent damage to this important archaeological artifact.

The viewing platform, located on a nearby rooftop, is accessed through the *América Tropical* Interpretive Center. The platform, which is accessible during the open hours of the center, can accommodate up to twenty people at a time.

The challenges of designing and building a contemporary canopy and viewing platform in a historic district were difficult, but their final design is sensitive to the surrounding historic fabric. As an example, the color palette of Olvera Street and El Pueblo are integrated into the design of their key elements.

INTERPRETATION AND PRESENTATION

Given *América Tropical's* deteriorated state and the faintness of its image, interpreting the mural for the public posed a challenge for the exhibit's designers. The aim of the interpretive center is to offer visitors a fuller understanding of *América Tropical* in the context of Siqueiros's work and life. To achieve this, designers created a series of interactive exhibits and didactic displays on a range of topics, including the story of Siqueiros as an artist and political activist; the milieu of Los Angeles in the 1930s; the iconography and meaning of the mural, as well as its conservation; and the impact of Siqueiros's legacy on Los Angeles and the contemporary mural movement. The complex story of the mural is seen through these many lenses, providing visitors with a deeper knowledge of who Siqueiros was, what he was saying in the mural, and how the mural influenced subsequent generations of artists.

From the early attempts to preserve the mural in the late 1960s to the comprehensive project undertaken by the GCI and the City of Los Angeles (supported in part by Friends of Heritage Preservation, a group of private individuals based in the United States), the perseverance and commitment of individuals and institutions, along with the work of a multidisciplinary team, have made it possible for people to finally view the only remaining public mural in Los Angeles painted by Siqueiros. These combined efforts have served to preserve *América Tropical*, so that its artistic, social, and historic legacy can be appreciated for generations to come.

Leslie Rainer is a senior project specialist with GCI Field Projects, and the manager of the Conservation of América Tropical project.

TEMPORARY ART?

The Production and Conservation of Outdoor Sculptures in Fiberglass–Reinforced Polyester



**BY LYDIA BEERKENS
AND FREDRIKE BREDER**

THE PRESERVATION OF OUTDOOR SCULPTURES DIFFERS FUNDAMENTALLY FROM THE PRESERVATION OF OTHER ARTWORKS in an important respect—they are on permanent exhibition without the protection of a building. Writing in the GCI Newsletter in 2007, conservators Derek Pullen and Jackie Heuman described the long tradition of outdoor sculptures, identifying bronze and stone as the best surviving materials and pointing out the diverse management and conservation problems associated with these works of art. To avoid extensive and invasive treatments, regular maintenance of outdoor sculpture is crucial. Both good maintenance and appropriate restoration

need to be preceded by an exploration of the production of these sculptures, the materials involved, and the artist's intent, taking into account the sculpture's location and the local climate.

While traditional bronze sculptures with either an applied patina or a naturally developed patina survive well, bronze and metal sculptures with a clear varnish or those painted in full color will last only as long as the coating stays intact. Discoloration and wear deface the appearance, while delamination of the coating induces corrosion and other damage of the metal underneath. A rather different material, in both production and appearance, is composite plastic fiberglass-reinforced polyester, also known as GRP. Although strong and lasting, this new twentieth-century material has its own issues of wear and deterioration and, when used for outdoor sculptures, its own particular conservation challenges.

The 2009 disassembling of *Lifesaver Fountain* (1993) by Niki de Saint Phalle, from its site in Duisburg, Germany, prior to conservation. Photo: Frederike Breder/ Restaurierungsatelier "Die Schmiede" GmbH.

ART PRODUCTION WITH GRP

The industrial development of GRP and its commercial availability have prompted artists to work with this material. Artists have favored GRP for outdoor sculptures because it lasts outdoors, is strong, is easy to work with, and is available in any color. The material allows artists to actually produce the final sculptures themselves, and to create playful works on an impressively large scale. From about 1960 onward, artists such as Jean Dubuffet, Niki de Saint Phalle, and later Atelier Van Lieshout worked in GRP for their outdoor sculptures, colored either by mixing pigments into the polyester resin or by artistically painting the surface afterward.

The process of making an artwork in GRP is complex. Niki de Saint Phalle constructed her early works by alternating fiberglass and polyester resin layers on a wire-mesh framework, painting them afterward. Her later works were produced from her designs by her assistants. Atelier Van Lieshout applies colored GRP over large wooden constructions of human and anatomical shapes cut out in foamed plastic. The final polyester layer in these cases is called the *top coat*. A different procedure for making an object in GRP involves molds, enabling series production and very smooth surfaces—as, for example, with the Futuro houses designed by Matti Suuronen in 1968.¹ Here the final surface coating is called the *gel coat*, being the first polyester layer that is applied in the mold. Early on, Jean Dubuffet experimented with reinforced plastic and transferred his painted polystyrene sculptures with the aid of molds into GRP that he painted afterward.

The molds are the negative form of the artwork's model, made in plaster or cut from foamed plastic—as, for example, expanded polystyrene (EPS). The molds, often produced in GRP themselves, serve as the negative shape to form the GRP for the



The retouching of *Lifesaver Fountain*, being carried out in 2010. Photo: Frederike Breder/Restaurierungsatelier "Die Schmiede" GmbH.

final artwork or for parts of it. The inside of the mold is treated with paraffin wax. Next, the gel coat, translucent or colored, is applied, and when it is half set, several layers of polyester resin and glass fiber are applied. After the complete GRP package is cured, the elements are removed from the mold, to be assembled into the final sculpture over a supportive frame. Colors can be mixed into the top or gel coat, but the artist can also choose from a great variety of commercial paint and varnish systems, including opaque, translucent, luster, and metallic paints.

MAINTENANCE, PREVENTION, AND CONSERVATION

Regular surface cleaning is *the* basic maintenance of outdoor sculptures. Cleaning can be performed by trained staff using suitable cloths, sponges, and soft brushes, water, and neutral surfactants. More advanced cleaning, such as rinsing with low-pressure water combined with cloth and brushes, should be done only if needed and only if the material is sufficiently durable. This approach should be carried out cautiously by a conservator, as inappropriate cleaning mediums and tools can cause severe damage.

To prevent the wearing down of a sculpture's surface, sacrificial wax, acrylic, or emulsion protection layers—with optional UV absorbers and fungicides added—can be brushed or sprayed on and then monitored on a yearly basis. This standard procedure for outdoor bronzes and painted metal sculptures also works well for artworks in GRP.²

The deterioration of GRP sculptures manifests itself in various ways, from the micro to the macro level. Sunlight causes discoloration and, combined with rain, produces a dull and chalky surface after a decade or so. When the polyester wears down, water can enter the fiberglass reinforcing layer, causing mold growth and further damage after a period of frost. Larger breaks in the material can result in corrosion of the metal inner construction or in the rotting of any wooden structure inside.

Actual damage, breaks, and tears or the flaking of the paint layer require repair. Localized repair involves clearing away worn material. Preparing the area for a lasting fill and a stable retouching often entails irreversible loss of original material. Such a loss should be considered secondary to saving the entire sculpture and its appearance, as delaying intervention or doing nothing facilitates further decay and, in the end, costs more.

Retouching in an aged paint layer, however, may stand out over time, as the original and repair layers age differently. No paint layer, protective coating, or varnish lasts forever outdoors, and recoating ultimately becomes inevitable. For a durable recoating of GRP, the best current coating system that most matches the original surface should be selected. Because with good preparation and priming of the surface, the original surface may not stay intact, the concept of reversibility should be reconsidered in light

of the main aim—to restore the sculpture’s original look and the artist’s intent, particularly when the artwork was fabricated by industry in the first place.

DECISIONS ON TREATMENT

Several examples of the conservation of outdoor sculptures in GRP illustrate some of the treatment issues involved.

Some of the many Niki de Saint Phalle painted GRP sculptures have sustained damage, fading, and delamination of paint and are in need of treatment. The *Lifesaver Fountain* (1993) in Duisburg, Germany (a joint work with her artist husband Jean Tinguely), has recently been restored. The joints of the inner structure of the sculpture were strengthened by additional stainless steel profiles in order for the fountain to again be operated properly in its public space. Acrylic fillings were applied, and because total repainting was not yet necessary, localized painting—with translucent and opaque acrylic paint containing the same pigments as originally used—was carried out, with good results. A polyurethane clear coat was then applied to mimic the original.³

Jean Dubuffet experimented in realizing his monumental sculptures with reinforced plastic. He used epoxy resin, fiberglass cloth, aluminum grate, and polyurethane paint for the tree in his *Jardin d’email* (1974), a massive piece in the sculpture garden of the Kröller-Müller Museum in the Netherlands. The top part of the GRP tree has displayed good durability over almost forty years, as it still retains the original polyurethane paint layer from 1974. In contrast, the large concrete construction, upon which visitors can walk, always needs regular care. Eight different types of paint layers applied there during the same forty years are proof of the complexity of choice in modern paint technology *and* of decisions to repaint the surface time and again. The Dubuffet Foundation in Paris provides advice concerning repainting his works, explaining that the black lines on Dubuffet’s monumental sculptures are always hand-painted.

Also at the Kröller-Müller Museum is Atelier Van Lieshout’s *Mobile Home for Kröller-Müller* (1995). When this large piece suffered badly from a leak in the roof and replacement was necessary, it was decided to ask the artist’s studio to replace the roof by a reconstruction in new GRP in an improved shape, while con-



Detail of the tree in *Jardin d’email* (1974) by Jean Dubuffet, before and after conservation and partial repainting. The tree is part of a massive piece in the sculpture garden of the Kröller-Müller Museum in the Netherlands. Photo: Frederike Breder/Restaurierungsatelier “Die Schmiede” GmbH. © Fondation Dubuffet/ARS, New York, 2012.

servators executed local repairs on the kitchen unit and the bathroom unit with epoxy glues and retouched the sleeping unit with polyurethane paint. A wax layer was applied as a sacrificial protection layer for the GRP.⁴

MANAGING THE FUTURE

Preservation of GRP outdoor sculptures depends upon regular cleaning and the application of protective coatings as part of general maintenance. When conservation treatments eventually become necessary, they should be based on preserving the work’s original look and the intent of the artist, and the materials used must be sustainable in the outdoors, rather than reversible. The treatment cases discussed here suggest that traditional standards in conservation are too limiting for outdoor sculptures and that new standards have to be agreed upon by conservation professionals—standards that give precedence to preserving an artwork’s identity over saving original material. Artists, artists’ foundations, and fabricators could be an enormous help in making, keeping, and providing materials and swatches of paint as reference for any future repair or repainting. This kind of physical reference material, in the long run, may be of greater help than the trade name of a paint system or material in preserving these sculptures in their outdoor settings, as moving the sculptures indoors can hardly be an option.

Lydia Beerkens is senior conservator of modern art at SRAL Maastricht in the Netherlands. Frederike Breder is conservator of modern art at Museum Folkwang in Essen, Germany.

1. Lydia Beerkens, “Matti Suuronen’s Futuro House prototype, 1968: Back in business in the 21st century,” in *Future Talks 2011: Technology and Conservation of Modern Materials in Design: Papers from the Conference Held at the Pinakothek der Moderne, Munich, October 26 to 28, 2011*, ed. Tim Bechthold (Munich: Die Neue Sammlung, The International Design Museum, in press).
2. *Conserving Outdoor Sculpture: The Stark Collection at the Getty Center*, by Brian Considine, Julie Wolfe, Katrina Posner, and Michel Marc Bouchard (Los Angeles: Getty Conservation Institute, 2010), provides good guidelines for the regular maintenance of bronzes and other outdoor sculptures.
3. For more information on the conservation of Niki de Saint Phalle’s *Lifesaver Fountain*, contact Martin Kaufmann, head of conservation, Restaurierungsatelier “Die Schmiede” GmbH, Duisburg; www.schmiede-duisburg.de.
4. Sanneke Stigter, Lydia Beerkens, Henk L. Schellen, and Sara Kuperholz, “Joep van Lieshout’s ‘Mobile Home for Kröller-Müller’: Outdoor polyester sculpture in transit,” in *ICOM Committee for Conservation, 15th Triennial Conference, New Delhi, 22–26 September 2008: Preprints*, ed. Janet Bridgland (New Delhi: Allied Publishers, 2008), vol. 1, 489–96.

CONSERVATION AND CARE OF SCULPTURAL MONUMENTS

BY ANDREW NAYLOR

TODAY THE CONCEPT OF *MONUMENT* to some has negative connotations associated with Victorian glorification of the elite, triumphalism, or maudlin sentimentality. Since the First World War, monuments in memory of those killed in catastrophic events are differentiated from earlier monuments and are regarded as memorials, democratically paying tribute to victims, families, and communities alike—still poignant but subdued, contemplative, and inclusive. Monuments generally, however, have been superseded by public art. These may mark, celebrate, or commemorate people, places, and events, but they reject the pomposity of their antecedents and are typically more fun or challenging.

Whether they are monument, memorial, or public art, we have a duty to care for these primarily sculptural works made from bronze, marble, stone—or, more recently, from an extended range of materials available to contemporary sculptors. As with all artworks, we can conserve all these materials, but we must also conserve the aesthetic value and cultural significance of the works themselves. Here conservators may come into conflict when, in some quarters, there is a compulsion to “spruce up.”

The O’Connell Street monuments in Dublin are among those that have suffered from past smartening up. The O’Connell Monument itself, arguably John Henry Foley’s masterpiece, had a tumultuous history from its commissioning. Foley was Irish but had decamped to England to further his career; this did him no favors in the competition for the commission, but nevertheless, his was the winning design. During the 1916 Easter Rising, the O’Connell Monument was in the line of fire of the fierce battle that centered on O’Connell Street, and the monument took many hits from large-caliber bullets. During the “Troubles” later in the century, the Ulster Volunteer Force extended its campaign of shootings and bombings to Dublin, one target being one of the four Winged Victories at the base of the O’Connell Monument, Victory by Courage, which was blown off the monument in 1996.

In addition to that, the monument (probably in the 1970s)



Statue of Daniel O’Connell (unveiled 1882) by John Henry Foley, on O’Connell Street in Dublin, prior to conservation. Photo: Hall Conservation Ltd.



Conservator Andrew Naylor coloring the O'Connell bronze using encaustic wax. Photo: Hall Conservation Ltd.

was sandblasted with coarse grit, followed by painting of the bronze—first with an orange metallic paint, then with black. Subsequent weathering left a patchwork of exposed bronze and different colored paints that had a camouflage effect, disguising the form. Besides being subjected to guano droppings, the monument is an irresistible pinnacle to climb at times of celebration, a great place to enjoy the *craic* and a greasy burger or to leave evidence of a night of heavy consumption of the national beverage.

When conservation treatment of the monument was undertaken in 2005, Hall Conservation and the Dublin City Council took a philosophical view of the climbing, burger grease, and regurgitated Guinness. The bullet holes, shattered stonework, and damaged Victory are graphic records of the history of the monument and of Ireland, and it was decided that they should remain to illustrate that. However, it was also felt that restoration of the unity and dignity of the bronze was justifiable.

Rather than strip, refinish, and repatinate the eroded bronze, which removes material and involves harmful chemical solutions, material was added in the form of waxes combined with pigments to recover the color. First a very hard and durable pigmented wax was applied to the preheated bronze. This provided ground color, over which was applied an encaustic of more colored waxes in a palette that imitated patinated bronze, with subtle highlights and shading. When the color was right, two further coats of clear wax were applied. The benefits of this technique are that any remnants of historical evidence on the surface are left intact for future reference. The wax is to some extent self-cleaning and is easily maintained; above all, the clear wax and semi-translucent tinted waxes build up depth and richness in the finish.

The James Larkin memorial (by Oisín Kelly) was a relative newcomer to O'Connell Street. Erected in 1971, it escaped the attention of both bombers and cleaners. By 2005 dirt and diesel soot were clinging to the deeply textured surface of the bronze, but it had developed a very pleasing green patina. All that was needed

by way of conservation treatment was a thorough but careful wash, which improved the appearance of the sculpture; protection is now provided by a clear wax coating. As long as a sculpture is in sound condition, simple and low-cost treatment and maintenance are effective and most economical in the long term.

Other O'Connell Street monuments include the statue of Father Theobald Mathew (by Mary Redmond), which was also conserved but remains fingerless as a consequence of the Irish Republican Army's bomb that destroyed the nearby Nelson's Pillar in 1966. It was also decided to accept that Dubliners and tourists would continue to sit on the base of James Joyce's statue (by Marjorie Fitzgibbon), contemplating either great literature or their shopping lists. Eventually the bronze will wear through, but only in hundreds of years; in the meantime, millions of people will have enjoyed relaxing there.

In the case of each of these monuments, decisions regarding the extent of conservation treatment were made on the basis of retaining elements of the monuments' history and not simply on an intention to create a pristine appearance. At the same time, these historic and artistic works have been conserved in ways that provide both long-term protection and renewal of their beauty.

Andrew Naylor is a director and sculpture conservator with Hall Conservation, which is based in London.



Dublin Statue of James Joyce (unveiled 1990), by Marjorie Fitzgibbon, following cleaning and waxing. Locals and tourists often sit on the statue's base, an inevitable consequence of its physical location. Photo: Hall Conservation Ltd.

OUT IN THE OPEN

A Discussion about the Conservation of Outdoor Public Art

SUSAN GRAY was (until July 2012) the senior cultural planner at CRA/LA, the designated local authority and successor to the Community Redevelopment Agency of the City of Los Angeles, overseeing major public art and cultural revitalization efforts in economically challenged regions of Los Angeles.

FRIEDERIKE WAENTIG has been involved with the preservation of public art in the city of Cologne, as a professor of conservation at the Cologne Institute of Conservation Sciences of the University of Applied Sciences; she specializes in the use of synthetic materials in art.

RURI YAMPOLSKY has been the director of the Public Art Program for the Office of Arts and Cultural Affairs for the City of Seattle since 2006; for fifteen years, she was a project manager at the agency, overseeing the integration of art into large-scale capital construction projects.

They spoke with **RACHEL RIVENC**, an assistant scientist at the GCI, and **JEFFREY LEVIN**, editor of *Conservation Perspectives*, *The GCI Newsletter*.

RACHEL RIVENC Let's start by defining public art and its function.

RURI YAMPOLSKY *Art in public places* is all art in the public realm, regardless of who has provided it—be it a museum, a corporate entity, or a government agency. I define *public art* as art funded by government. When we established our public art program in Seattle in 1973, we included in the preamble to our one-percent-for-art ordinance that the city accepts responsibility for expanding public experience with spatial art. Such art enables people to better understand their communities and individual lives. It also speaks to the ideas of engaging people in civic dialogue, of creating community, and of creating place and space.

SUSAN GRAY The Art Program Policy of the Community Redevelopment Agency of the City of Los Angeles mandates that developers working with financial assistance from the agency are obligated to dedicate one percent of their hard and soft construction costs toward an art plan, which may manifest in public art or some other permanent physical improvement

of an artistic nature. The policy is very prescriptive, and we have strict guidelines.

FRIEDERIKE WAENTIG Every city has to define for itself what public art is. In Cologne, it's public art paid for by the city, as well as gifts from groups and from artists. It includes not only public places, but also private places where the public can see the art. Public art is a tradition. Even if people don't consider what it means to take care of the art, they still want cultural things in their public spaces. Inhabitants of cities in Europe are active in commenting on public art, particularly in the last twenty years, as more modern art, especially abstract public art, is installed. If you don't communicate what an artwork is about, people will say, "No, we don't want it. We want something we can understand, and we don't know what this is."

YAMPOLSKY In Seattle we involve the community in different ways. As we develop calls for artists, we might ask community members to outline their interests for the upcoming project. We include community members in the selection process as well, and in ongoing conversations with the artist.

GRAY Our art program traditionally connects to our Redevelopment Plans, which have been officially adopted for a neighborhood. In those plans, created in direct consultation with the community, certain visions are put forward, such as seeing open-space-development beautification carried out in a particular way. That shapes our thinking about how the community can be involved in the artist selection process and in the type of artwork concept and application.

RIVENC How is maintenance funded, once a work is created?

YAMPOLSKY Our ordinance forbids using percent-for-art funds for maintenance, as they are typically capital funds, often raised through bonds and levies. We're allocated separate funds for conservation, which has to cover 380 permanently sited artworks and 2,800 portable artworks. Our conservation funds—which come from a portion of real estate sales taxes—pay for a staff conservator, a van, materials, rentals, and consultants we may need for specific works. While at the end of the year, we find



Regular maintenance for sculpture in the public domain is completely different than for sculpture in a museum.

SUSAN GRAY

we have to defer some conservation to the next year, the funds we get are generous relative to a lot of other programs.

GRAY With our public art commissions, the developer must spend their onsite allocation on design, fabrication, and installation. They can't keep a reserve for maintenance. The care of the artwork is the property owner's operating expense, and we have legal covenants to ensure that the work is kept in place and appropriate maintenance performed. However, a portion of the developer's one-percent budget is deposited into a Cultural Trust Fund established for that particular Redevelopment Project Area, and we can use these funds for conservation and restoration of artwork that CRA/LA or a community partner or city department has commissioned.

WAENTIG In Germany most museums are public and financed by the government, so the owners of the artworks are primarily the city or the county, and they are responsible for conservation and maintenance. We have some public art that is private, and they handle the conservation. We have a similar one-percent-for-art program if you construct a public building, but by law, this money is only for the creation and installation of art, not maintenance. The city and the county have to cover that. With older art, they sometimes try to list it as a monument so that the monuments department has to cover maintenance and conservation. If it's not that old, the cultural department has to take care of it. If they assign the public art to a museum, it's on their budget to cover conservation. It sounds chaotic—and it is.

RIVENC How much does politics influence funding?

GRAY Elected officials are decision makers, and they influence other people's decisions. They can speak to department heads about identifying other funding sources. For example, a portion of a cleaning budget might become a restoration fund—or a park improvement project budget that included replacement furnishings suddenly becomes a restoration budget for a park monument. It's a matter of prioritizing funds and not necessarily providing more money.

WAENTIG They can influence things in a good or bad way—that's the problem. A mayor can tell you which way things will go without relying on the people who know this stuff. Sometimes he's just doing what another politician wants. It's good to have politicians who are interested in art and culture, but it's a problem if you have a mayor who is not educated in cultural matters.

JEFFREY LEVIN What are the most important issues that these works face as a result of being out in the open with public access?

GRAY They're vulnerable to the elements, obviously, and to the public, with their fingerprints, their spilt sodas, and their gum. Regular maintenance for sculpture in the public domain is completely different than for sculpture in a museum. You're talking about exposure that may require a robust periodic cleaning schedule on a limited budget. You need someone competent to perform these services—not necessarily a conservator, but someone appropriately trained and hopefully paid for their time and materials. Placement of the art is key to minimizing unwanted contact. There are all manner of things we need to take into account, in consultation with the artist, to help protect the artwork and reduce maintenance: weather patterns, positioning of the landscaping sprinklers, level of security and surveillance, the work's nearness to a public thoroughfare, and its exposure to pollutants.

WAENTIG With museums, people go because they *want* to go to the museum. With public art, it can be there in front of you whether you want it or not. You have to explain the artwork and tell people what it is, because preserving the art only works if it is accepted. The problem is that artworks often are not accepted.

RIVENC But even when it is accepted, people touch it or interact with it, and that can damage it, right?

GRAY We have a work by Catherine Hardwicke, *Hollywood and La Brea Gateway* on Hollywood Boulevard, which tourists pose with daily, having their photographs taken with the statues. It's always the same spots on the artwork that show loss of the surface coating and need to be monitored and treated by a conservator.

Another example in Hollywood is a couch made out of cast concrete with a robust industrial surface coating. You'd think it would be impermeable, but people by the hundreds touch it daily, spill sodas on it, and leave shoe scuff marks on it. People love that piece, but that comes at a cost with regard to care.

LEVIN Friederike was suggesting that a museum visitor enters with a certain presumption about physically respecting objects—a presumption that doesn't exist when artworks are in a public space.

YAMPOLSKY Right. It's something you encounter. We try to provide access to public art, and while we don't expect that everyone will love each artwork, we hope the art draws people out of their routines and makes them aware of their environment. Public art is part of an urbanism related to design of the public realm. We expect that people will touch any art we put out there and hope it will be in a good way, but if you create a certain kind of surface, it can attract skateboarders or vandalism. When we review qualifications of artists during selection of permanently sited artworks, we generally look for art constructed in durable materials. At the same time, we don't always limit commissions to people with experience doing public art. If we think an artist's work can be translated into a medium that's more durable—such as porcelain, enamel on metal, or ceramic tile—then we provide those opportunities, understanding that the work will be out in the elements.

LEVIN What about situations where concerned members of the public take it upon themselves to clean a work of public art, but they don't do it properly and damage it in the process?

GRAY You may have a tag on a sculpture that's easily removed with a little acetone and a soft sponge, but some well-meaning volunteer or untrained custodian comes along with a heavy-duty solvent or an abrasive cleaner and a scouring pad, and the tag is removed—along with the actual surface coating or structure that may be expensive to repair. You need to fix that problem, but it's also a matter of research and advocacy, identifying who these volunteers are, and getting them on board to report problems to appropriate personnel.

LEVIN Have there been efforts to organize community volunteers to be stewards of public art in their neighborhoods?

YAMPOLSKY It is in our work plan to develop workshops regarding artwork stewardship in communities. They may focus on taking care of an artwork in the neighborhood, or center on creating awareness about the artwork. Our conservator can only inspect each artwork once or twice a year, so if people in the community know they can call us when they notice a problem, that

can be very helpful. We've also talked about developing a program to train community volunteers to perform routine cleaning.

WAENTIG In Cologne there are people who will call a museum or the cultural heritage department when there's a sculpture with some painting on it or some scratches that need to be taken care of. Cologne has a community helpline that people can call if they have general questions or see problems with some public art. It's very important to have people engaged in this. If your conservator is visiting an object only twice a year, it's not enough.

YAMPOLSKY That's why it's great to let residents know whom to call if they spot a problem. We have a graffiti hotline and if the graffiti is on an artwork, the hotline lets us know. We contract with other city departments to perform graffiti removal in situations where they can't do damage, but if the tagging is on bronze or on a delicate surface, we send our conservator.

RIVENC If it's a vertical surface, it's a target for graffiti. If it's a horizontal surface, it's going to be skateboarded. How do you deter these responses?

YAMPOLSKY We work with the artist during the development of an artwork. We don't want to preclude works that present a large surface, so we encourage artists to create surfaces from which graffiti can be easily cleaned. Also, surfaces with a lot of texture tend to be less attractive to taggers. We don't want to tell an artist, "You can't do that because it will be tagged." But we want to make caring for a project more manageable knowing that it *can* be tagged. We've used antigraffiti coating—usually the artist provides the initial coat, and then we're responsible for recoating. There are times when artists are resistant to coatings. Once you add a coating, it might change the color or the finish of stone. We try to find something the artist is comfortable with.

GRAY Sometimes the preferred sealant is proprietary, along with the removal agent, and then we need to buy that product in bulk, which has a shelf life and will need to be replaced. Where possible, we try to use a coating that can be cleaned with some inexpensive, off-the-shelf, environmentally friendly product.

WAENTIG Doesn't it depend on the material? We had a wooden object on the top of a museum that had bleached out and had some pest infestation, but we couldn't convince the museum director to put it inside, even though we couldn't really find a coating or a sealant we could use. With wood, you either put it in storage or in a museum, or acknowledge that there's a certain lifetime for the object, and then it's gone.

YAMPOLSKY In the Pacific Northwest, there is a large First Nations population, and over the years, Seattle has received a number

Photo: Andreas Krupa



Conservation does not start with a treatment. With public art, it's taking a broader look and researching the work's environment ...

FRIEDERIKE WAENTIG

of wood totem poles as gifts. Traditionally, totem poles are meant to deteriorate. You don't restore them—you just replace them with something else. But you can't have art in public places that ultimately falls down. So our approach, particularly with older totem poles, is to remove any insect infestation and biological growth and apply a wood preservative. We don't restore them but try to keep them in a state of stasis so that they don't deteriorate further. Handling tag removal on wood is difficult. Removing graffiti often leads to ghosting, particularly on wood. But I try not to discourage the use of wood because it is so important to native communities.

GRAY There are basically two sorts of taggers in Los Angeles: gang-related taggers where it's identification—"This is my area, keep out"—and then urban street artists making aerosol art. The street artists are talented and competitive. They love risk and getting to places that no one else can. So we do whatever we can to plan for tagging, making the artwork hard to reach or placing it in a well-patrolled location, with a surface that allows easy tag removal, if possible.

YAMPOLSKY It's important to clean it quickly. Taggers move on to another place if they feel that their tag isn't staying there long.

WAENTIG We had a situation in an old industrial part of Cologne where taggers were invited to go and spray for a whole weekend on a wall that had been apportioned so that everyone could get one piece. And it worked. The taggers liked it, and tagging around the area was less after that. In another situation, we had a school building with an artwork made out of steel stripes, called *Playing Children*. It's fixed on a brick wall, and when taggers sprayed, they respected the artwork—the spraying was only on the brick and not on the art. But the city department team that cleaned it had no conservator, so they sandblasted not only the wall but also the painted steel stripes. The paint is now gone, and the artwork has started to rust. The city team didn't respect the artwork, but the young people who were spraying did.

RIVENC Since there is no anti-skateboarding coating, can you provide protection through the design of the work?

GRAY You can, either by breaking up the work architecturally or by mitigation with integrated anti-skateboarding devices. You want the artist to design these measures as part of the original work, rather than installing them retroactively.

YAMPOLSKY We had a skate park that was displaced because of new construction, and the skateboarding community felt that the city owed them another park. So we engaged an artist, paid the artist's design fee, and then the Seattle Center built the skate park. The artist, consultants, and members of the skateboarding community were involved in the process. The artist designed a glass perimeter wall and a glass skatable element, then digitally enlarged and enhanced images of old skateboard decks and incorporated them as the imagery on the glass. The skateboarders appreciated not only the fact that they had a skatable artwork but also the fact that the artist understood their culture. Engaging communities that don't normally have art associated with their facilities goes a long way toward gaining their trust and sense of ownership of the art.

LEVIN In many ways, the conservation of public art has become less about treatment and more about management, which includes preventive conservation. Can we talk about that evolution?

WAENTIG Conservation is quite a young profession. In the beginning, the person who restored an artwork was a craftsman or an artist. With the establishment of an academic conservation education, curricula included the sciences, the humanities, and the crafts. When I began studying conservation in the mid-1980s, we didn't have a subject called preventive conservation. It was called "climate, light, and atmosphere." It was really just measuring relative humidity and light and taking care of the temperature. Today preventive conservation is about management: taking care of maintenance, monitoring, and risk management. What we have learned in the profession's development is that conservation does not start with a treatment. With public art, it's taking a broader look and researching the work's environment—the buildings and people in its surroundings—as well as the artist and the materials in its construction.



Public art is part of an urbanism related to design of the public realm.

RURI YAMPOLSKY

YAMPOLSKY It is important to have a record of the materials used to create an artwork. We contractually obligate the artist to fill out forms describing the intention for the artwork, the dimensions, and the materials used, and we require the artist to obtain extended warranties when electronic equipment is part of the work. We also request detailed maintenance instructions. Our contract states that we will maintain the artworks as long as we have funding. We also include in the contract the ability for the city to deaccession artworks. We typically expect artworks to last thirty years, but for digital artworks we shorten that to ten.

RIVENC It seems that in Los Angeles and Seattle—because you're involved in commissioning artwork—you have an opportunity to manage the life of the object from the beginning.

GRAY Conservation and management of the artwork are discussed three times contractually. During the schematic design, the property owner commissioning the artwork (and long-term steward of the work), the artist, a conservator, and operations people discuss how the artwork is expected to age, how people will interact with it, and how the space will be used. At that point, it may be apparent that “this location isn't going to work—we need to move it to a safer location.” The property owner might also think, “This will cost me more annually for cleaning than I thought—maybe I should upgrade materials to protect my investment.” This conversation is held again in the final design phase, in case we need to tweak the proposal. Finally, once the project is implemented, there's the documentation phase where the material data, the warranty manuals, and the construction drawings are bundled together, including a document from artists about how they expect the work to age and what is acceptable to them in terms of fading, chipping, or cracking.

WAENTIG The location of the artwork is important. In Cologne we discuss the location of the art not only with the curator, the city, and the monuments care department but also with the police. The police can tell us, “This area is okay, but don't go to this area—it will be destroyed.” We also work with the street

departments and gardening departments. The artwork needs to be in a safe area, and an area where we have people to care for it.

LEVIN We're discussing issues that are exceedingly complex and political and that would be entirely foreign to a museum curator. Clearly, communication among government agencies with respect to these works is critical.

YAMPOLSKY For security reasons, Seattle Public Utilities covered our reservoirs and, in so doing, created large areas of land that became parks, under the jurisdiction of our parks department. We wrote a memorandum regarding who would take care of an artwork created in one of these parks—a work with a volcano-shaped cone as part of a large water feature. Under the agreement, the water utility would construct the water feature, and the parks department would pay for it, but then they had to agree who was responsible for some of the maintenance. We handle the maintenance of the cone surface, but the innards, the plumbing, are the responsibility of the parks department. However, they needed to negotiate with the water department—whose contractor built the water feature—about who is responsible if something leaks.

GRAY We've had situations where an informal arrangement had been made between department heads about picking up the bill for a maintenance or operating cost, and then, years later, the department realized that they were paying for the water to clean a sculpture or for the staff time to clean the artwork, and then they started billing us for the services—a cost we hadn't budgeted for. You need to fully document these arrangements.

WAENTIG Different departments compete, or don't talk to each other, or don't know that there's another department taking care of an artwork. And there is the basic problem of understanding what art is. You can't use the same cleaning methods you would on a traffic lamp. Perhaps because the profession of conservation is so young, this is not as clear as it should be. If you hurt your hand, you go to a doctor for treatment, not to a street worker. Conservation has to do better in telling the public what the profession is about.

RIVENC How important is it to have a conservator on staff?

YAMPOLSKY We have had a full-time conservator for the last eight years. Previously we used consultants. It's great having someone who is not just an in-house resource but is also available for emergencies. If it's graffiti, she can go out at a moment's notice and deal with it. And she's also a resource for other departments. The parks department sometimes commissions or accepts their own artworks, and they don't have a process for maintaining them. Our conservator gives them technical assistance, and in return, they allow her to use their truck, which has its own water tank, so when she has to pressure-wash an artwork, she doesn't have to unload a cistern from our van.

GRAY We've always had to contract conservation services for work the CRA/LA commissioned directly. In recent years I had a conservation associate who worked with me inspecting and documenting the works throughout the collection and then identifying issues. We would prioritize the problems, then contract with a conservator to do specialized work or to provide education to the stakeholders. If a private developer owned the artwork, we'd help the developer match the need with the proper skill set within the conservation community.

LEVIN Do most of the artists you work with appreciate the complications associated with public art?

GRAY Most of our artists have a sophisticated knowledge of public art protocols and expectations, as well as of our responsibilities toward the general public. But every now and then, you come across somebody who doesn't get it. I had one piece start to fail within a few years because of skateboard damage, and when I contacted the artist to discuss design modification, the response was, "Well, just treat it like a Roman ruin."

YAMPOLSKY Public art, as a field, is not for every artist, and there are some who say, "I will never do this again." But most understand the process. There's a whole level of administration that our artists have to manage—and that's not unique to Seattle. There's a lot of consensus building in the way we do things in Seattle, and the artist has to have a stomach for engaging with many different people. Artists deal not only with us but with the managers of the capital project and with community members.

WAENTIG What I see with younger artists is quite a low understanding of this process. The older the artist, the greater their understanding of the importance of material choice and maintenance conservation. In Germany, artists are primarily trained in creativity, not in materials. Understanding of materials and maintenance is minimal. Only when artists get older and their work is being bought by museums or collectors do they start thinking about the preservation of their art materially.

GRAY Artists are often not making everything in their own studios, and so they develop special relationships with materials suppliers and fabricators. They become masters of certain approaches and perhaps don't feel comfortable doing something else. But generally, it's a very sophisticated group we work with. For example, I had one artist detect an incorrect paint specification for a surface adjacent to, but unrelated to, the artwork, and that artist told me, "You might want to share this with the construction crew."

YAMPOLSKY A lot of artists we work with have design backgrounds or were trained as architects. For them, public art is about urbanism and shaping environment. They understand that they're doing something for the community and creating a sense of place. Some artists delve deeply into the history of a site, and sometimes they illuminate that for the community.

WAENTIG We have been working with an artist who is only producing kinetic artworks for the outdoors, because he wants to create works everybody can see. From the 1960s until today, he has changed materials. He started with Plexiglas and some electronic parts, and then, recognizing that these didn't work well, started to work just with wind. Then he recognized that plastics were not durable, and switched to metals. Today he still works only on outdoor sculptures, but is also looking for landscapes that really fit the work and communicate with the community. That's different from artists who just produce artworks and sell to collectors or museums.

LEVIN Can you encapsulate in a few words what we should think about in terms of the future of public art?

GRAY Stewardship. Our art program in Los Angeles is ending as part of California's closure of all redevelopment activities, so we need to think about our legacy. I feel an overwhelming sense of responsibility right now to ensure that the collection is taken care of and that there are mechanisms in place for stewardship.

WAENTIG Communication and education. As a teacher, I think about education but also about communication. And the question we have to communicate is—should we give every object a certain lifetime? Do we say, "Okay, this object will only last this long, and then the artist can take it back or it's going to be destroyed or die." In Cologne, we get more and more artworks. Where's the end? Communicating this question is the challenge.

YAMPOLSKY Innovation and adaptation. You're always looking for innovative ways to make public art relevant. Doing so means using newer materials and newer media, and figuring out ways to make art relevant to the time. But there is adaptation too—as needs change, different types of art may become relevant. How do you adapt your program to embrace those different needs while maintaining and conserving those forms for future generations?

Key Resources

CONSERVATION OF PUBLIC ART



ONLINE RESOURCES, ORGANIZATIONS & NETWORKS

Americans for the Arts Public Art Network

www.artsusa.org/networks/public_art_network/default_004.asp

Art-Public

www.art-public.com/

California Civil Code section on the protection of works of art

<http://law.onecle.com/california/2010/civil/987.html>

The GCI Newsletter: Mural Conservation

www.getty.edu/conservation/publications_resources/newsletters/18_2/

The GCI Newsletter: Outdoor Sculpture

www.getty.edu/conservation/publications_resources/newsletters/22_2/

Heritage Preservation's Rescue Public Murals

www.heritagepreservation.org/rpm/index.html

Heritage Preservation's Save Outdoor Sculpture

www.heritagepreservation.org/programs/sos/index.html

International Network for the Conservation of Contemporary Public Art (INCCA)

www.incca.org/

Mural Conservancy of Los Angeles

www.muralconservancy.org/

Public Art Resource Project

www.publicartresourceproject.com/links.html

Video of public panel at the Getty: Conservation Challenges of Outdoor Public Art

www.youtube.com/watch?v=G_-FDy6kU0I&feature=youtube_gdata_player



BOOKS, JOURNALS & CONFERENCE PROCEEDINGS

Conservation and Maintenance of Contemporary Public Art

by Hafthor Yngvason (2002), London: Archetype Publications.

The Conservation of Bronze Sculpture in the Outdoor Environment: A Dialogue among Conservators, Curators, Environmental Scientists, and Corrosion Engineers

edited by Terry Drayman-Weisser (1992), Houston: NACE.

Copper and Bronze in Art: Corrosion, Colorants, Conservation

by David A. Scott (2002), Los Angeles: Getty Conservation Institute.

Guide to the Maintenance of Outdoor Sculpture, 2d ed.

by Virginia Naudé and Glenn Wharton (1995), Washington DC: American Institute for Conservation of Historic and Artistic Works.

Maintenance of Outdoor Sculpture: An Annotated Bibliography

edited by Shelley Sturman (1996), Washington DC: National Institute for the Conservation of Cultural Property.

Public Art by the Book

edited by Barbara Goldstein (2005), Seattle: Americans for the Arts in association with University of Washington Press (copyright Office of Arts & Cultural Affairs).

For more information on issues related to Conservation of Public Art, search AATA Online at aata.getty.edu/nps/

GCI News

Project Updates

To learn more about the projects and activities of the GCI, visit our website at getty.edu/conservation.

MOSAIKON UPDATE

The MOSAIKON initiative—a partnership of the GCI, the Getty Foundation, ICCROM, and ICCM—seeks to improve the conservation, presentation, and maintenance of mosaics in the Mediterranean region, both those in situ and those in museums and storage. It is accomplishing this aim by strategically deploying resources to four main areas of work:

(1) strengthening the professional network, (2) building local capacity, (3) developing locally available and affordable conservation practices, and (4) disseminating and exchanging information more broadly. This past spring, several activities took place in furtherance of these goals.

Regional Technician Training Course

In April, the first training session of the regional course for technicians of in situ mosaics began in El Jem, Tunisia, with twelve participants



Mosaic technician trainees at the site of El Jem in Tunisia. Photo: Tom Roby, GCI.



Photographic documentation during the rapid assessment survey of mosaics at Bulla Regia in Tunisia. Photo: Juana Segura Escobar, GCI.

from four North African countries (Morocco, Algeria, Tunisia, and Libya) in attendance.

This six-week session, part of a two-year course to train conservation technicians, focused on documentation of mosaics using the methodology developed at courses previously held for Tunisian mosaic technicians by the GCI, in collaboration with the Institut National du Patrimoine (INP), Tunisia. Topics covered included an introduction to mosaics and their conservation, as well as intensive training in graphic documentation and recording.

GCI staff and consultants took part in the instruction, classroom presentations, and on-site practical work, assisted by two Tunisian technicians previously trained by the GCI, Lotfi Layouni and Hamadi Sillini. The next session in the course is scheduled to begin at the end of October in El Jem, with the same twelve participants and instructors.

Model Field Project

In June, as part of MOSAIKON's model field project work at the Roman-Byzantine site of Bulla Regia, Tunisia, GCI project specialist Leslie Friedman, GCI graduate intern Juana Segura Escobar, and three conservator consultants carried out a rapid survey of excavated mosaics at Bulla Regia, collecting data on the condition, significance, and degree of exposure of these works. Over three hundred mosaics,

more than two-thirds of those at the site, were surveyed during the campaign, with the remaining to be surveyed and documented in fall 2012. Three technicians of the Tunisian Institut National du Patrimoine, all trained by the GCI, were based at the site. They carried out preliminary cleaning of the mosaics, and INP site management staff were trained in and assisted with the survey and photographic methods.

The data collected from the survey will form the basis of the site's conservation plan. Conservation planning will be carried out in 2013 with the aid of a GIS being developed for the site. The GIS will eventually be used as a site management tool for Bulla Regia.

In addition to site-wide conservation planning for all mosaics at Bulla Regia, the model field project also includes conservation treatment and public presentation of significant houses with mosaics. INP conservation technicians have been engaged in cleaning and stabilization treatments in one of the major houses at Bulla Regia, famous for its underground levels decorated with floor mosaics. One of these houses, the Maison de la Chasse, has already undergone structural interventions by the World Monuments Fund. By the end of 2013, it is anticipated that the conservation interventions of all forty-seven in situ mosaics in the Maison de la Chasse will be completed. MOSAIKON's model field project is funded by the GCI Council.

CHINESE COLLEAGUES AT THE GCI

Training and capacity building have been an important component of the GCI's collaborative work in China over the last twenty years. Since 2000 this has included an informal residency program at the GCI for midlevel and senior staff from various institutions and government agencies within China, including the Dunhuang Academy (DA) and the State Administration of Cultural Heritage (SACH). Staff from these institutions undertake research and work with GCI personnel to advance collaborative projects and gain a more thorough understanding of the GCI, as well as of international conservation practice. On occasion, they also take part in other international projects of the GCI. To date, the GCI has hosted thirty-nine personnel from SACH, the Dunhuang Academy, and other institutions in China.

Recently two colleagues from SACH participated in the program for a three-month period, from April to July 2012. Shao Jun and Huang Xiaofan both hold graduate degrees in archaeology from Peking University; while at the GCI, they undertook research relevant to the ongoing revision of the China Principles. Shao Jun, previously assistant to the former director general of SACH, investigated issues surrounding presentation and interpretation of heritage sites. Huang Xiaofan, from the World Heritage Division, developed ideas regarding the use of heritage sites. In addition to utilizing the extensive library holdings of the Getty and meeting regularly with GCI's China team, they explored cultural institutions in the Los Angeles area and took field trips to San Diego, San Francisco, and the U.S. Southwest to experience management of national parks and museums.

URBAN CONSERVATION PLANNING COURSE HELD

Between April 30 and May 11, 2012, the GCI delivered a two-week course, Urban Conservation Planning in Malaysia, in the World Heritage city of Penang, as part of the GCI's Built Heritage in Southeast Asia project. The course was organized in collaboration with Malaysia's primary nongovernmental conservation organization, Badan Warisan, and with Think City, a division of Khazanah (part of Malaysia's Ministry of Finance). Its main objectives were to enable a

group of fifteen Malaysian urban planners to better understand internationally recognized urban conservation planning methodologies, to teach them widely employed tools and techniques in the context of conservation and planning, and to prepare them to integrate those tools into their professional planning work throughout Malaysia.

Through the talents and experience of nine Malaysian and international instructors, who complemented formal presentations with field exercises and guided discussions, the course emphasized a values-based approach to heritage conservation. It stressed the importance of documentation, defining significance, developing conservation guidelines, and assessing impacts on historic sites. It also addressed the ways in which current Malaysian planning regulations and policies could be employed to manage change in urban contexts more effectively.

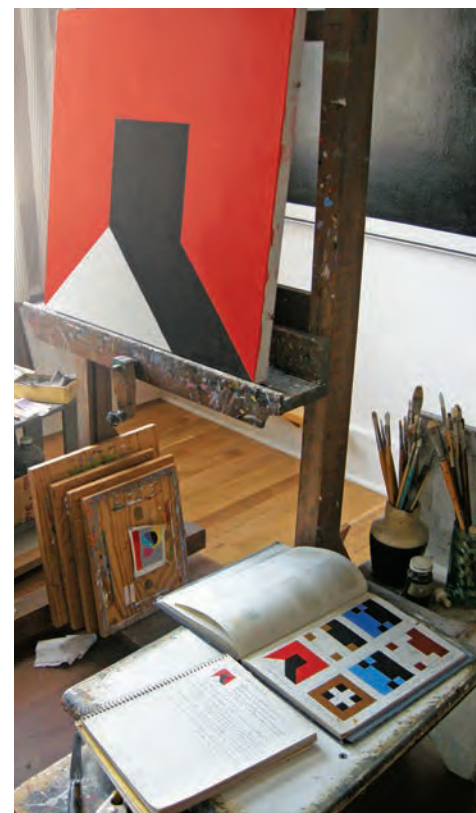
The participants are now beginning to use these methods in their normal planning work while being mentored by several of the course's instructors. This mentoring will continue over the next several months, and in January 2013, the GCI and its partners will reconvene the group to determine how best to build upon the course's lessons and its mentoring component so that more significant conservation-related changes can beneficially address Malaysia's ongoing planning challenges.

CONSERVING MODERN ARCHITECTURE EVENTS

As part of the Conserving Modern Architecture Initiative (CMAI), launched in March 2012 (see *Conservation Perspectives*, vol. 27, no. 1), the GCI is presenting a series of public events related to the conservation of modern architecture that are relevant to a wide professional audience. The first of these, "Approaches to Conserving Modern Architecture in the U.S.A.," was held in June 2012. Gunny Harboe, FAIA, founder of Harboe Architects; Leo Marmol, FAIA, managing principal of Marmol Radziner; and Kelly Sutherlin McLeod, AIA, principal-in-charge of Kelly Sutherlin McLeod Architecture, were joined by CMAI project manager Kyle Normandin in a discussion and examination of new approaches to balance design and conservation principles in the rehabilitation of modern architecture. Watch the June 2012 event, in its entirety, on

the GCI's YouTube channel (youtube.com/gettyconservation) and subscribe to our channel to be notified when new videos are posted.

The next event, "Continuity and Change: Approaches to Conserving Modern Architecture Internationally," scheduled for November 15, 2012, will focus on the restoration and adaptive reuse of the iconic Modern Movement building ensemble the Van Nelle Factory in Rotterdam, designed and built between 1926 and 1930 by Brinkman and Van der Vlugt. Extensive historical research into the buildings' construction techniques and early colors was the basis for an outstanding restoration and reuse of these buildings of European and international importance. In 2008 the project and its team received the Europa Nostra Award, the Grand Prix of the European Union Prize for Cultural Heritage. Guest speaker and prominent architect Wessel de Jonge, of Wessel De Jonge Architecture, will discuss current and emerging issues related to the restoration and adaptive reuse of the Van Nelle Factory and, more broadly, will address how conservation approaches used in this project can promote sound conservation decisions and practice for managing change in works of modern and postwar architecture.



Notebooks and unfinished painting set up at Hammersley's studio. Photo: Alan Phenix, GCI. Painting and notebooks: © Frederick Hammersley Foundation.

HAMMERSLEY ARCHIVE EXPLORED

This past spring, the Modern and Contemporary Art Research team began work on a remarkable set of archive materials from painter Frederick Hammersley (1919–2009), which offers unique insights into an artist's working methods, materials, and creative intentions.

Frederick Hammersley was a leading postwar abstract painter in Southern California. Alongside Karl Benjamin, Lorser Feitelson, and John McLaughlin, he came to prominence as part of the group shown in the 1959 exhibition *Four Abstract Classicists*, who were painting in a style that came to be known as West Coast hard-edge. Hammersley studied art in Los Angeles in the 1940s, where he continued to teach at several art schools until he moved to Albuquerque in 1968.

In 2010, in preparation for the Getty's *Crosscurrents* exhibition, GCI scientists Tom Learner and Alan Phenix, with Getty Research Institute curators Andrew Perchuk, Rani Singh, and Glenn Phillips, visited the studio of Hammersley, now the base for his foundation. During this visit, foundation director Kathleen Shields introduced the Getty team to the various archive materials held there.

Among this collection are notebooks compiled by the artist over the course of nearly five decades. The four-volume set that Hammersley called his "Painting Books" records the physical details of his completed "geometric" paintings, from 1959 until just a few months before his death. Such a comprehensive record of an artist's working practice has few parallels. The notebooks offer wonderful insights into the relationships among his materials, technique, and creative intent and are an important reference for conservators who may encounter his work.

In March, Phenix, accompanied by consultant Tom McClintock, returned to the Frederick Hammersley Foundation to examine and photograph the notebooks. The Foundation generously allowed access to archive material and to works by the artist that remain in its collection. The project has been further assisted by LA Louver gallery, which has represented Hammersley since the 1970s.



Participants in the CAPS workshop held at Tate Britain comparing the effects of different cleaning systems. Photo: Tram Vo, GCI.

THIRD CAPS WORKSHOP HELD

In July 2012, the Getty Conservation Institute organized the workshop *Cleaning of Acrylic Painted Surfaces (CAPS)* as part of its Research into Practice Initiative. Held at Tate Britain, this was the third CAPS workshop to be presented following events held at the Getty Center (2009) and the Museum of Modern Art (2011).

The primary aim of the July workshop was to introduce the eighteen international participants to a range of potentially useful new cleaning products and systems for acrylic painted surfaces, many of which have been proposed from scientific testing and screening, as part of the GCI's collaboration with the Dow Chemical Company and Tate to develop more effective cleaning systems for acrylic paints. The secondary aim was

to gather from conservators empirical observations about these different cleaning systems, to complement ongoing scientific testing and to expedite conservation advances in this area.

Led by four instructors—Bronwyn Ormsby (Tate), Richard Wolbers (University of Delaware), Chris Stavroudis (independent conservator, Los Angeles), and Tom Learner (GCI)—the workshop included overviews of the current knowledge of the cleaning of acrylic paints, with a focus on the range of recent advances in this area, including a variety of new cleaning systems undergoing testing. The majority of the time, however, was spent in the studio, where hands-on work was done to explore the theory and practice of cleaning approaches and to evaluate their applicability and efficacy. Frequent group



A rock art panel in Kakadu National Park, Australia. Photo: Neville Agnew, GCI.

discussions addressed diverse subjects, including personal treatment experiences, outstanding issues and problems for individuals and the field, and priorities for future research.

*For more information about *Cleaning of Acrylic Painted Surfaces*, including the workshop schedule with an overview of subjects covered during the workshop, visit the GCI website.*

FOCUS MEETING HELD ON TWENTIETH-CENTURY OUTDOOR PAINTED SCULPTURE

As part of its Modern and Contemporary Art Research initiative, the GCI held a focus meeting at the Metropolitan Museum of Art in New York this past June to discuss the issues and challenges posed by the conservation of twentieth-century outdoor painted sculpture. The meeting, funded by the GCI Council, was attended by thirty invited participants, including conservators (from private and institutional sectors), sculpture fabricators, and paint experts, as well as several artists' estates, foundations, and studios. Artists represented included Mark Di Suvero, Sol LeWitt, Alexander Liberman, Roy Lichtenstein, Louise Nevelson, and Tony Smith, with the Dubuffet

Foundation and Oldenburg–van Bruggen studio also involved in the discussions.

Outdoor painted sculpture presents some unique conservation challenges because of the extreme difficulty of keeping paint layers intact amid the harsh environments to which they are usually exposed. Intense light with its UV radiation, adverse weather conditions, and vandalism or accidental damage all quickly affect a paint surface. Current conservation practice for these works tends to favor the preservation of the original aesthetic qualities of the sculpture while providing optimal protection to the substrate. Consequently, typical treatments usually involve full repainting of the sculpture, often accompanied by removal of all earlier coats of paint. Although this approach optimizes the longevity of the latest paint applied, the downside is a possible loss of significant information on the original paint systems used.

The primary aim of this meeting was to identify potential responses to the many conservation issues presented by outdoor painted sculpture, with focus on two main areas: (1) the need to develop better relationships with the paint industry in order to develop more robust paint products and to ensure that appropriate application techniques are used, and (2) to work more closely with artists' estates, foundations, and studios to

establish agreed-upon paint finishes that can be used as reference swatches for future treatments.

The outcomes of the meeting will form the basis of the GCI's future work in this area, and a full report of the meeting's discussions will be available on the GCI website this fall.

AUSTRALIAN CONSERVATION AND MANAGEMENT OF ROCK ART WORKSHOP

Since our beginnings, humans everywhere on earth have painted and engraved images on natural rock faces. Often sublimely beautiful, sometimes mysterious and inscrutable, these works of art, spanning the time period from our origins tens of thousands of years ago to the present, provide a global archive of the human impulse to express and communicate beliefs and ideas.

In recent years, under the banner of the Southern African Rock Art Project (SARAP), the GCI has organized workshops focused on management, conservation, interpretation, and tour guiding of rock art sites. These have been held at the World Heritage sites of Mapungubwe and the Cederberg in South Africa. The GCI recently began a partnership with the Institute for Professional Practice in Heritage and the Arts (IPPHA) at the Australian National University,

to provide a workshop on the conservation and management of rock art as part of SARAP.

Australia and the subcontinent of southern Africa face many of the same issues in the preservation of rock art. Both have a rich heritage of rock art sites and indigenous communities closely associated with them, and both suffer from lack of public awareness of the significance of these sites.

In July 2012, IPPHA hosted a two-week program for a group from southern African countries structured around site visits starting in Canberra and continuing on to Arnhem Land in the Northern Territory. The visit to Australia was a uniquely productive experience in that it enabled an exchange of expertise and knowledge and fostered the beginnings of what are hoped to be enduring contacts. In 2013 a reciprocal exchange will occur in South Africa for those participating in the Australian workshop, with meetings at selected sites to further strengthen contacts, enhance conservation practice, and study indigenous management practices and sustainable use of sites.

Upcoming Events

ADVANCED-LEVEL PHOTOGRAPH CONSERVATION WORKSHOPS

GCI Education is pleased to launch a new series of intensive two-week workshops focusing on issues related to the treatment of photographs and photographic negatives. These advanced-level workshops are designed as a follow-up to the 2008–10 course Fundamentals of the Conservation of Photographs and are intended for photograph conservators in central, southern, and eastern Europe. Although priority will be given to conservators working in this region, a limited number of spaces may be available to conservators from other parts of Europe.

Each annual workshop in the series will focus on a specific conservation issue, exploring appropriate treatment options in depth through lectures, discussions, and practical sessions.

Over a period of five years, workshops are planned on the following themes:

- humidity and water-related damages;
- structural repairs (consolidation, creases, tears, planar distortion, humidification and flattening, unmounting and mounting);
- nonstructural/cosmetic repairs (reduction/removal of stains, adhesives, accretions and silver mirroring, bathing, filling and compensation for losses, inpainting);
- conservation of albums, scrapbooks, and portfolios;
- glass plate and film-based negatives, and cased photographs.

The first workshop will be offered in late spring or summer 2013 at the Croatian State Archives in Zagreb. Additional information regarding the workshop, including fees and expenses, and an application form will be available on the GCI website in fall 2012.

To be placed on the email list for the workshop, please send your name and email address to: euphotos@getty.edu.

SCHOLAR APPLICATIONS NOW BEING ACCEPTED

Since 2000 the GCI's Conservation Guest Scholar program has provided an opportunity for leaders in conservation to pursue research that will advance conservation practice and contribute new ideas to the field. Successful candidates are in residence at the Getty Center for periods of three, six, or nine months, and they are chosen by a professional committee through a competitive process. For more information on the Conservation Guest Scholars program and information on the application process, click on the Guest Scholars link on the GCI home page (getty.edu/conservation). The deadline to apply for the 2013–14 Conservation Guest Scholar program is November 1, 2012.

2012–13 Conservation Guest Scholars

The Getty Conservation Institute is pleased to welcome the 2012–13 Conservation Guest Scholars, who will be in residence at the GCI starting in September 2012.

Lynn Pamela Campbell, Conservator
Christchurch Art Gallery Te Puna o Waiwhetu,
New Zealand. "An Investigation into New

and Recent Methods and Processes Involved in the Salvage of Heritage Collections in an Earthquake Zone"

September–December 2012

Neil McKerrow Thornton Jackson,

Professor of Architecture

University of Liverpool, England. "Conserving the California Steel House: A Guide to Good Practice"

January–March 2013

Katarina Kristianova, Professor

Slovak University of Technology, Faculty of Architecture, Bratislava. "Gardens of MoMo in Slovakia: Aspects of Preservation and Restoration."

January–March 2013

Ruven Lucio Saravana Pillay, Research Scientist

Centre de Recherche et de Restauration des Musées de France, France. "Computational Image Analysis and Visualization for Art Conservation"

April–June 2013

Marina Pugliese, Director

Comune di Milano, Museo del Novecento, Italy. "The Impact of Lucio Fontana's Research on Environmental Artworks and Installations Between 1950 and 1970: Historical, Documentary, and Conservation Issues"

April–June 2013

Donald Shelby Sale, Preventive Conservation Manager

Royal Pavilion and Museums, Brighton, England. "Developing a Methodology for the Evaluation of Adhesives and Consolidants for Sculpture and Objects Made of Transparent Plastics Using Accelerated and Natural Long-Term Aging"

October 2012–March 2013

Paul Schwartzbaum, Senior Technical Advisor and Conservator for Museum Construction and Overseas Exhibitions for the Guggenheim Foundation, United States. "The History and the Potential Downside of Preventive Conservation in the Exhibition of Works of Art"

April–May 2013

Application materials for the Conservation Guest Scholar, Postdoctoral Fellowship in Conservation Science, and Graduate Internship programs can be found on the Getty Foundation website at getty.edu/foundation.

Postdoctoral Fellowship Opportunity

Applications are now being accepted for the 2013–15 Postdoctoral Fellowship in Conservation Science, a two-year program designed to provide recent PhD recipients in chemistry and the physical sciences with experience in conservation science. The 2013–15 fellow will undertake research as part of the GCI's Collections Research group.

Applicants should have a recent (2008 or later) PhD in chemistry or another physical science, experimental research experience, strong instrumental analysis skills, and an aptitude for learning and adapting new analytical techniques. Applicants should be creative and versatile problem solvers and be able to work effectively in small teams. Candidates should have an interest in the visual arts and a serious interest in pursuing a career in conservation science within the museum environment.

Application materials and the full terms of the postdoctoral program are available on the Getty Foundation website. Completed application materials are accepted online only. The deadline for receipt is November 1, 2012.

Graduate Intern Program

Applications are now being accepted for the 2013–14 Getty Graduate Internship Program. Graduate internships at the Getty support full-time positions for students who intend to pursue careers in fields related to the visual arts. Programs and departments throughout the Getty provide training and work experience in areas such as curatorial, education, conservation, research, information management, public programs, and grant making.

The GCI pursues a broad range of activities dedicated to advancing conservation practice and education, in order to enhance and encourage the preservation, understanding, and interpretation of the visual arts. Twelve-month internships are available in the Education, Field Projects, and Science departments of the GCI.

Detailed instructions, application forms, and additional information are available online in the "Funding Priorities, Leadership" section of the Getty Foundation website. For further information, contact the Getty Foundation at gradinterns@getty.edu. The deadline for applications is December 1, 2012.

2012–13 GCI Graduate Interns

Thomas Bernecker

Cologne University of Applied Sciences,
Cologne Institute of Conservation Sciences,
Germany
MOSAIKON: Site Management and
Technician Training

Julia Langenbacher

Stuttgart State Academy of Art and Design,
Germany
Preservation of Plastics

Jesse Windflower Lattig

University of Pennsylvania, Philadelphia,
United States
Arches Database Project

Sonia Maccagnola

Università di Bologna, Italy
Collections Research Laboratory

Tim Luk Germain Michiels

Raymond Lemaire International Centre
for Conservation (Catholic University of
Leuven), Belgium
Earthen Architecture Initiative

Luise Rellensmann

Brandenburg University of Technology,
Cottbus, Germany
Conserving Modern Architecture Initiative

Joe brought to his work unfailing integrity, creativity, and thoughtfulness. His quiet and gentle manner, laced with humor and insight, and his collaborative spirit made working with him both a professional and a personal pleasure.

Joe's work with the GCI was by no means restricted to the newsletter. Over the years, he undertook many assignments from GCI staff, designing a variety of materials related to GCI projects, conferences, and other events, displaying the same calm and careful eye he brought to his work on the newsletter. He also carried out design assignments for the Getty Research Institute and the Getty Trust, including designing several Getty Provenance Indexes, the *J. Paul Getty Trust Bulletin* during the late 1980s and early 1990s, and some early Getty Trust annual reports.

Joe—whose work beyond the Getty was wide ranging, including teaching at a number of Southern California institutions—took a creative approach to the look of words on a page. His respect for words informed his sense of design, and he prided himself on looking for ways to make content, through design, more accessible. He certainly achieved this objective repeatedly during his many years of skillful work on this publication.

He will be missed by his family, his friends, his students, and those of us at the Getty and elsewhere who had the privilege of working with him.

Tribute

JOE MOLLOY, 1944–2012

Joe Molloy—a gifted graphic designer who for many years worked on the GCI Newsletter, as well as on numerous other GCI and Getty materials as the head of his own studio, Mondo Typo—passed away in April 2012 after a long battle with leukemia.

Joe's association with the newsletter dated to 1986, when the earliest iteration of the publication appeared with Joe as the designer, a position he held until 1990. He returned as the newsletter's designer in 1993 and served in that capacity until 2009. During those years,

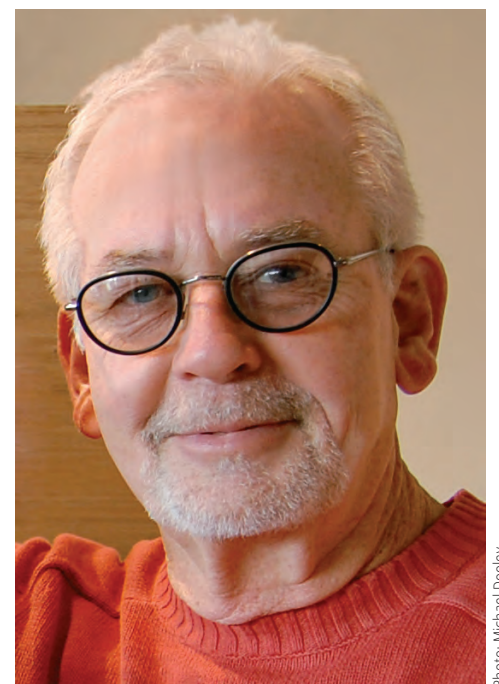


Photo: Michael Dooley

New Publications



Archaeological Sites: Conservation and Management

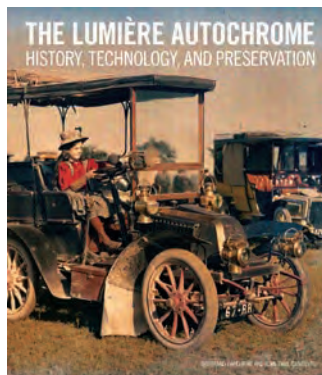
Edited by Sharon Sullivan and Richard Mackay

This is the fifth volume to appear in the Getty Conservation Institute's Readings in Conservation series, which gathers and publishes texts that have been influential in the development of thinking about the conservation of cultural heritage. The present volume features more than seventy texts that have made important contributions to the understanding of the conservation and management of archaeological sites, addressing key issues from both a historical and a contemporary perspective.

The readings cover a broad spectrum of site types, geographic locations, cultural contexts, and methodological approaches and techniques. They range chronologically from early eighteenth-century memoirs and late nineteenth- and early twentieth-century texts by such pioneers as Heinrich Schliemann and Sir Arthur Evans, to a thorough representation of recent scholarship. The volume is divided into five parts focusing on historical methods, concepts, and issues; conserving the archaeological resource; the physical conservation of archaeological sites; the cultural values of archaeological sites; and site management.

Sharon Sullivan is an adjunct professor at three Australian universities and a member of the Australian Heritage Council. Richard Mackay is an adjunct professor at La Trobe University in Melbourne and a partner at Godden Mackay Logan, a leading Australian heritage consulting firm.

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The Lumière Autochrome: History, Technology, and Preservation

By Bertrand Lavédrine and Jean-Paul Gandolfo
With the collaboration of Christine Caperdou and Ronan Guinée

Louis Lumière is perhaps best known in the United States for his seminal role in the invention of cinema, but his most important contribution to the history of photography was the autochrome. Engagingly written and marvelously illustrated with over three hundred images, this translation from the French tells the fascinating story of the first industrially produced form of color photography.

Initial chapters present the Lumière family enterprise, set out the challenges posed by early color photography, and recount the invention, rise, and decline of the autochrome, which in the early twentieth century was the most widely used form of commercial color photography. The book then treats the technology of the autochrome, including the technical challenges of plate fabrication, described in step-by-step detail, and gives an account of autochrome manufacture. A final chapter provides in-depth recommendations concerning the preservation of these vulnerable objects. The appendix includes transcriptions and facsimile reproductions from the Lumière notebooks, as well as original patent documents.

Bertrand Lavédrine is director of the Centre de recherche sur la conservation des collections (CRCC) in Paris. He is the author of *Photographs of the Past: Process and Preservation* (Getty, 2009) and *A Guide to the Preventive Conservation of Photograph Collections* (Getty, 2003). Jean-Paul Gandolfo teaches at the École nationale supérieure Louis-Lumière near Paris.

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The Getty Conservation Institute works internationally to advance conservation practice in the visual arts—broadly interpreted to include objects, collections, architecture, and sites. The Institute serves the conservation community through scientific research, education and training, model field projects, and the dissemination of the results of both its own work and the work of others in the field. In all its endeavors, the GCI focuses on the creation and delivery of knowledge that will benefit the professionals and organizations responsible for the conservation of the world's cultural heritage.

The GCI is a program of the J. Paul Getty Trust, an international cultural and philanthropic institution that focuses on the visual arts in all their dimensions.



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THE GCI NEWSLETTER



One of the four lion sculptures surrounding Nelson's Column in Trafalgar Square in London. Human interaction with art and monuments in public spaces is a fact of life—one with implications for the care and conservation of these works.
Photo: © Ricardo De Mattos.



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