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 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 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.

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 contemporary 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.

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

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.

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 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.

*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
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 conservation 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 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.