

A B O U T T H I S K I T

Oil changes, tire rotation, washes and waxes help your car run

efficiently and retain its appearance. Flossing and daily brushing are necessary for healthy and attractive teeth and gums. Both extend the results of care from professionals. As with your car care and dental hygiene, maintenance of outdoor sculpture is not optional. Maintenance will extend the life and appearance of your sculpture and reinforce the work of conservators of outdoor sculpture.

Outdoor sculpture is a serendipitous blend of art and history that everyone can enjoy every day. Outdoor sculptures and monuments are highly visible focal points and, when well-maintained, help create a healthy, vibrant sense of community. By definition the artworks are outside. Perhaps because these works are seen daily they are taken for granted and, as a result, are in peril from neglect, vandalism and pollution, vulnerable regardless of material.

Bronze artworks, for example, with surfaces only a few millimeters thick, can suffer irreparable loss due to acidic depositions. That acidic pollution can subvert solid stone sculpture, too. Modern materials like fiberglass and painted aluminum can crack, split and peel. Years of neglect or lack of awareness have created a backlog of artworks in serious need of attention. Once proper treatment addresses the needs then regular maintenance, when performed according to instructions, can protect the sculpture for years. Dollars devoted to treatment will be best spent when supported by regular, ongoing maintenance. Maintenance reduces loss of material and helps retain the appearance of outdoor sculpture after treatment.

Save Outdoor Sculpture! (SOS!), established in 1989, is jointly sponsored by the National Institute for the Conservation of Cultural Property and the National Museum of American Art, Smithsonian Institution. The project's two goals have been to raise public awareness about the need to provide responsible and ongoing care for outdoor sculpture and to inventory all publicly accessible outdoor sculpture in the United States. SOS! 2000 aims to spark the preservation of 10,000 outdoor sculptures by the year 2000. For additional

information about SOS!, consult our home page on the Internet at <http://www.nic.org/sos/sos.html>.

The Inventory of American Sculpture (IAS) is a database of indoor and outdoor sculpture. To keep the inventory current and useful, please report changes to your collection of outdoor sculpture — additions, removals, relocations, treatment and maintenance. To use the database electronically, connect to siris via telnet at siris.si.edu. Access is direct; no password is necessary. If this access is not available to you, call (202) 786-2384.

This SOS! Maintenance Information Kit was prepared for several audiences and for several reasons:

- Owners of outdoor sculpture have legal and moral obligations regarding collection care.
- Owners who care responsibly for their outdoor sculpture make a clear statement of pride in their community's appearance.
- Citizens and organizations involved in raising money to save outdoor sculpture need guidelines. Factoring the cost of regular maintenance into campaign goals will save dollars in the long run.
- People who make and commission new artworks can reduce the long-term costs of maintenance through their design choices.

The kit materials are designed for maximum flexibility:

- This booklet, "Maintenance Considerations to Save Outdoor Sculpture," makes a case for maintenance, identifies the pieces of basic and model maintenance programs, presents a smorgasbord of personnel options in implementing those programs and describes how other public and private owners cover the costs of maintenance. Photocopy pages as needed to develop your own program for sculpture maintenance. Call SOS! for the correct credit line.
- The videotape, "Maintain Outdoor Sculpture Today for Tomorrow," raises collateral issues: Why bother with maintenance? What harm results from benign neglect and thoughtless, inappropriate or misguided maintenance? How do you build a constituency for care? Viewers learn about the components of an intelligent, cost-effective maintenance program from managers of city agencies and conservators of outdoor sculpture. The videotape is primarily intended to help support your case for establishing a maintenance program — within a parks department or public art program, to a city manager or township council, for an advisory group or cemetery board. The tape can be part of a maintenance crew's initial training with a conservator or as part of follow-up, refresher training. You might air it on a local cable channel in conjunction with a library

series on your community's public sculpture. Please duplicate the videotape as needed. Include all credits with any duplication or viewing.

- "Designing Outdoor Sculpture Today for Tomorrow," a planning guide, identifies factors to consider — choice of materials, siting, design, for example — when commissioning new sculpture to prevent or reduce long-term costs of maintenance. Front-end action can reduce long-run costs.
- "Today for Tomorrow" is a condensed guide to the basic steps in setting up a collections management plan for outdoor sculpture and fund raising to underwrite costs of treatment and maintenance.
- Guide to the Maintenance of Outdoor Sculpture, written by conservators Virginia N. Naudé and Glenn Wharton, presents a model for developing maintenance programs and provides guidelines for the care of metals, stone, concrete, ceramics, wood, plastics and fountains. The guide is jargon free and intended for a broad-based readership.

This booklet was prepared by SOS! with significant assistance from members of the SOS! Maintenance Advisory Group, in particular Mark Rabinowitz, Nicolas Veloz, Glenn Wharton, conservators, and Michael Panhorst, art historian. We are grateful to Mayda Jensen, conservator, for her essay; Erin Bailey, public art coordinator, for her comments; SOS! staff for their thoroughness throughout the process; and Paul Clements for his design.

As a citizen or artist, do your favorite sculptures have a maintenance plan? Do the outdoor artworks in your town have a collection care plan? As an owner or administrator, how does your maintenance plan measure up against those presented in this kit? As a foundation or business executive, can care of outdoor sculpture be among your funding initiatives for the new century? Advocacy on behalf of outdoor sculpture must be a confluence of these private-public sector groups. Publicly accessible outdoor sculpture is a communal asset that requires communal responsibility for its care.

With the millennium upon us, use this SOS! Maintenance Information Kit to reinforce your commitment to save a sculpture for the next century, and the next — the goal of SOS! 2000. Make a gift of a preserved and maintained monument or outdoor sculpture for future generations.

S u s a n N i c h o l s
October 1996

MAINTAINING OUTDOOR COLLECTIONS

by Mayda Jensen

Placing monuments in the open air as memorials and reminders

of people and events past has been an obsession of Americans since the 19th century. We have celebrated and commemorated our loved ones and heroes, dedicated images to our leaders and created artworks to celebrate our ideals. But after dedication ceremonies have passed, few people recognize further responsibility toward the care of these sculptures.

Realizing that outdoor monuments of stone and metal decay has dawned on us slowly. While an accelerated rate of corrosion of bronze statues was documented in Europe as early as the 19th century, the focus of conservators and caretakers of outdoor collections in the United States began quietly in the 1930s and gained momentum in the 1970s. Since then great strides have been made to define the causes of deterioration of outdoor sculpture. Methods to reverse deterioration have been developed, and sculptures are being treated to stabilize them against the effects of weathering.

Fortunately we do not have to accept deterioration in new or recently treated outdoor sculpture. Weathering may be inevitable; outdoor conditions are extreme. But the effects of weather on outdoor sculpture can be slowed significantly. Loss of our national treasures can be mitigated by timely, careful maintenance.

Transformations from corroded metal to cleaned and patinated sculpture can be truly dramatic. The flurry of activity involved in a conservation project, from fund raising to the final treatment, can be quite exciting. But all too often, the sculptures are left outdoors to begin the slide, again, to a corroded, weathered and stained appearance. Most observers

will conclude that little, if any, change has taken place and that the artwork is only aging with natural grace. Nothing could be further from the truth!

Annual deposits of soil from airborne circulation are enough to support the growth of fungal cells on porous stone sculpture. Once begun, the roots (mycelium) of such growth penetrate the stone, beginning a cycle of deterioration by staining the sculpture with products of soil digestion that, if left untreated, complete the cycle by destroying the stone itself. Scientifically the process is a natural one, the means by which the earth recycles stone to soil. As individuals who appreciate stone artwork and memorials, we find ourselves at cross-purposes with this natural event. It is a process better interrupted in the beginning before significant damage is done.

Similarly, we have all observed the corrosion of metals. We may not have been aware that the rate of pitting corrosion accelerates when protective coatings break down, allowing moist air to contact exposed metal. And, until it was brought to our attention, few of us realized the extent to which bronze sculpture can be disfigured by the corrosive work of acid rainwater runoff.

We have grappled with the question of whether or not to bring artworks indoors. It might be nice, but it is often not practical or necessary. Regular, correct maintenance will add significant years to the life of outdoor sculpture. Conversely, a decade without maintenance may be all that is needed to return a sculpture to poor condition. Maintenance of sculpture is the key to slowing the ravages of weather.

Maintenance requires cleaning to remove acidic particulates from air pollution and settled soil from airborne dust, periodic renewal of coatings on metals and a watchful eye for structural changes. If a conservator-recommended annual maintenance program is followed, owners can keep outdoor collections clean, stable and presentable for public appreciation. Maintenance schedules are not static, though we like to keep the tasks concise. Cleaning with the wrong materials or using proper materials in a poor manner can damage sculpture irreversibly. We have seen the effects of chlorinated household cleaner on marble and it is not a pretty sight! Maintenance programs are hands-on, manual labor. Work involves the use of chemicals and heavy equipment. Timely intervention, however, is the key to preserving artworks.

Finding trained and experienced professional conservators is the secret to success. Conservators are trained in chemistry, art history and studio art. Art conservation teaches them to integrate these three fields of endeavor and offers practical experience. The result is treatment and maintenance of sculpture over the short and long terms, with the plan of perpetuating the original intention of the artist

who created
the monument.

New commissions should be maintained from the beginning. Ideally, with existing artworks, a maintenance program begins once a conservation treatment is completed. If no maintenance program is included, the owner or administrator of the artworks should search for another qualified conservator. Professional standards in conservation have been established by the American Institute for Conservation of Artistic and Historic Works (AIC). A referral list of conservators who specialize in sculpture can be obtained through the foundation of AIC at (202) 452-9545. Potential conservation contractors should be willing to discuss their approach to preservation methods and to work with the client to develop a program of care that is consistent with the goals of the client's governing body — whether a city, neighborhood association, private company or university. Maintenance of outdoor sculpture then becomes a team effort, with participation from owners or administrators, conservators, and volunteers or trained technicians. Success in maintaining the collection depends on open lines of communication and commitment to long-term, continued care.

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BASIC PLAN

Elements of an Effective Program

Ownership of outdoor sculpture carries legal and moral

obligations for proper care. A collection management plan can set clear guidelines that can help prevent ill-advised decisions. One piece of that overall strategy is individual maintenance plans for each artwork designed in cooperation with a conservator who specializes in the treatment of outdoor sculpture. Each program should take into account the needs dictated by the inherent requirements of the specific artwork, the local environment and the resources needed — and those available — for completing the work. When known, you should consider the intent of the artist as well; living artists should be asked for a written statement about materials, fabrication techniques and recommended maintenance procedures, which should be discussed with a conservator, too.

Although it is impossible to completely halt deterioration of monuments and outdoor sculpture, preservation maintenance procedures can extend their lives and lessen or forestall their inevitable demise due to the actions of the elements. An effective preservation maintenance program can be as simple as periodically rinsing off the dirt, grime and bird guano with a garden hose. Sometimes your artworks might require more specialized complex cleaning procedures, such as treatment with corrosion inhibitors or consolidants. Either option requires a definitive maintenance plan for each object in your care.

In general, an effective maintenance program consists of:

- A detailed overall initial inspection by a conservator that provides a baseline condition description. Periodic or regularly documented inspections should be scheduled to assess any deviation from that baseline, noting immediate needs or conditions that require treatment or further investigation.
- Assessment of these inspections, noting changes and options that best address the needs under present conditions. Plan for periodic monitoring of conditions. An annual review of

the collection provides an opportunity to consider recommendations from technicians for new equipment or changes in the maintenance cycle.

- A maintenance schedule, given money, time and personnel, either internally or under contract.
- Implementation of the program. Document all actions taken, materials used, work performed and recommended future maintenance. Evaluate any work completed and assess its successes or failures.
- Written job descriptions and well-developed, in-house training methods to ease transitions of staff turnover. Managers, owners and maintenance technicians should all be involved in training.
- Prudent and creative fund raising and financial management, which are integral to effective maintenance programs. Cyclical maintenance, simultaneous scheduling of work that requires like equipment and efficient use of the services of contracted conservators are examples of cost-saving measures.
- Public education — of citizens, alumni, business and civic decision makers, and school children. An informed audience will be a supportive community, one more willing to approve bond referenda, lead fund-raising campaigns, make donations or endorse expenditures of public funds for care of its collection.

Although your preservation maintenance program cannot anticipate all possibilities, at a minimum your plan should address the expected accumulation of dirt, grime and bird guano. Specific concerns about care of especially vulnerable artworks — marble or painted steel, for example — or steps to implement an emergency preparedness plan to mitigate the effects of natural disasters should be addressed as well.

DESIGN CHOICES

Site, Function and Materials Affect Maintenance

Maintenance of outdoor sculpture and monuments is

affected by siting and landscaping, by use of the site and choices in materials. Designs of new monuments and sculpture that consider maintenance can help reduce long-term costs of care. Existing artworks present other challenges. Although some adaptations can be made to reduce maintenance — types of planting, drainage and signage, for instance — some elements must be dealt with as given — construction materials or design of the artwork itself, for example. Consider the following:

- Select landscaping measures that reduce maintenance. Trees attract birds and produce sap and other natural resins and oils. Acidic deposits can damage surfaces. Leaves and seeds can lodge in crevices, retain moisture and lead to corrosion and other deterioration. Deeply shaded locations can encourage algae and other biological growth. Shade can also result in uneven drying of the sculpture. Opt for plant materials without invasive roots. Avoid vines that attach to surfaces.
- Establish a landscape maintenance program with pruning and/or periodic replacement to avoid overgrown landscapes that alter the artist's intention, hide the work of art and encourage vandalism. Using herbicides and fertilizers can be harmful to sculpture.
- Design sprinkler systems to avoid spraying water on the sculpture.
- Have water drain away from the sculpture site.
- Provide barriers between grass and sculptures to prevent marring from lawn mowers, trimmers and snow removal equipment.

Maintenance of adjacent structures or roadways can have an impact on neighboring outdoor sculpture too. For example, paint drips, over sprays or abrasion from ladders or scaffolding can occur during repainting of a nearby building. Sculptures near paths or roadways are susceptible to damage from aerosols with salt, salts splashed during de-icing and abrasion from passing equipment and vehicles.

When water is a design element, you can anticipate higher maintenance needs such as increased frequency of coatings. Consider these measures:

- Because water accelerates the deterioration of most materials, use materials that are stable in moist environments.
- Use maintainable waterproofing and moisture membranes.
- Algae and other biological activity and efforts to remove them, damage many materials.
- Freezing causes considerable damage. Cold winters require complete drainage of all water-holding elements.
- Be sure that piping, pumps and other electrical and mechanical parts are made of materials such as bronze, brass or stainless steel. This recommendation applies to pipe rests, flange bolts, screws and stone-mounting pins.
- Access for repairs must not require major dismantling of the artwork. Drain lines should exit at the lowest elevations and not use the pump return lines.
- Consider the effects of acids, bases, buffering agents and biological deterrents on fabrication materials. After installation, carefully monitor filtration and water chemistry. Personnel from pool and fountain maintenance services often have insufficient knowledge to address long-term and aesthetic concerns of artworks.

Natural wind or wind shears created by tall buildings can blow water and create hazards and damage. Water attracts birds and resulting feathers, guano and food scraps clog equipment and cause public health concerns. Water can be a magnet for humans too, as a child's pool or a homeless person's bathtub.

Other users of an outdoor sculpture or monument affect its long-term survival. Determine who — pedestrians and pets, cyclists, skateboarders — and how many will use the area and how they will use it.

Susan Carr, director of public art, Arts Commission of Greater Toledo, Ohio, has learned to include "users" in the mix of design considerations. "Our Major Ritual by Beverly Pepper suffered serious damage from skateboarders. It's taken a lot of time, dollars and public relations to correct the damage. Even re-sited on grass with a wide stone border, the sloping sculpture sometimes proves too seductive for skateboarders, in-line skaters or bicyclists. Now the artists and I discuss use and users early on."

A very special class of user is children. Outdoor sculptures intended for use as play structures require higher levels of maintenance, including eventual replacement. Allow for sufficient money to cover those additional maintenance expenses. Even with play structures, you can take steps to reduce maintenance costs:

- Isolate sandboxes and loose gravel to avoid abrasion and breakage.

- Choose structurally resilient, abrasion-resistant materials. Works will be subjected to greater wear than regular sculptures.
- Include provisions for the eventual repair or replacement of worn areas, including patination and coatings formulas and the preservation of molds or plaster originals. Measurements should be kept to monitor metal loss.
- Older, painted playscapes should be tested for lead paint.

Plan on increased maintenance needs when electrical, electronic and mechanical parts are included. Build repair and/or replacement into your long-term maintenance costs. Transformers and electrical devices should be accessible and concealed. If possible, manufacture or specify in advance all replacement parts. Keep mechanical and electrical features as simple as possible. (See also “Designing Outdoor Sculpture Today for Tomorrow,” enclosed with the SOS! Maintenance Information Kit.)

PERSONNEL OPTIONS

Programs and Practices

In *Guide to the Maintenance of Outdoor Sculpture*, Virginia Naudé and

Glenn Wharton advise, "If roles are defined in a Long-Range

Maintenance Plan, the personnel will understand what is expected of them. If contract personnel are involved, they must be committed to specific responsibilities and time lines through negotiated contracts. Training in-house personnel must be an ongoing part of the maintenance program. Since continuity is key to the success of any program, long-term commitment from employees and contracting consultants should be one of the goals of the administrator. Personnel will inevitably change, but carefully written job descriptions with well-developed in-house training methods will help in times of transition."

That guide is the best source now available for help in setting up a long-range maintenance plan. The theory described in the guide is reinforced here by examples of practice garnered from an informal telephone survey of 20 maintenance programs conducted in 1995 for the SOS! Maintenance Advisory Group. The telephone interviews confirmed several points recommended by Wharton and Naudé and generated a few more:

- Conduct training on the site where the maintenance will occur.
- Schedule periodic refresher training sessions.
- Begin with the simplest techniques.
- Promote a pride of work and a respect and sense of ownership for the artworks.
- Require knowledgeable and repeated supervision for both maintenance and conservation activities.
- Retain personnel at management and technician levels.
- Include management-level personnel in collection care training.
- Train new personnel directly, on-site, as original training occurred.

Do not have one generation of trained personnel train subsequent employees. Correct

materials and procedures will be lost through the “telephone game” of one technician training his or her replacement.

This last point is raised repeatedly. Mark Rabinowitz, deputy chief of operations for preservation, Central Park Conservancy, New York City, advises, “Institutional memory of the cyclical maintenance needs of an outdoor collection often exists only in an individual who has assumed responsibility either through planning or temperament. The departure of that individual can mean loss of the commitment to manage a maintenance program, particularly when works are owned by agencies whose primary agenda is unrelated to the curatorial care of outdoor sculpture, like departments of parks or transportation or boards of education.”

Brief descriptions of six of the programs surveyed are included here:

- The Central Park Conservancy, New York City, is responsible for 54 sculptural monuments under an in-house conservation and maintenance program. In 1995, a recently graduated conservator and one conservation technician with three years of in-house training worked with one or two student interns under the supervision of the director of conservation. Technicians, interns and conservators have come from programs in historic preservation or art conservation and from art schools. Typically they work for relatively short periods of time with the conservancy and then move on to work with other conservators of outdoor monuments. Training occurs through hands-on experience, first with relatively fail-safe techniques and then with more sophisticated procedures. Interns also attend conferences that offer sessions with experts in patination, gilding, art history and other topics. Twelve people were trained between 1991 and 1996.

Central Park Conservancy is committed to removing graffiti from the park within 24 hours of its being reported because removing graffiti at once is key to its elimination and recurrence. To achieve that goal the conservancy operates a Graffiti Removal Crew whose primary role is locating and removing graffiti. The crew consists of two technicians who are equipped with a truck, water supply, pressure washer, safety equipment, chemicals and miscellaneous materials. (See Selected Resources, 5, and Preservation Brief 38, “Removing Graffiti from Historic Masonry,” October 1995, National Park Service, Cultural Resources, Preservation Assistance.)

- At Brookgreen Gardens, Murrells Inlet, South Carolina, 60 bronze sculptures are cleaned and waxed by volunteers four to six times a year. The volunteers also monitor these sculptures between cleanings for removal of organic material. The remainder of the collection — 500 metal and stone artworks — are cleaned and waterproofed throughout the year by a staff of two. Consulting conservators have performed condition surveys and

return periodically to advise on and treat individual pieces. Maintenance procedures established by a sculptor in the 1940s, and periodically updated in consultation with conservators, have been followed since then by maintenance staff trained internally. Because the collection has a history of regular maintenance, the sculptures have never been allowed to degrade enough to require substantial restoration. (See Selected Resources, 6.)

- Until 1995, a monuments conservator with the National Park Service (NPS) conducted two-week training programs in washing and waxing practices for maintenance staff at individual parks. Between 1991 and 1996, three other training opportunities provided by the Northeast Field Area were available for NPS site staff. In the National Capital Area, NPS staff follow a particular set of maintenance procedures that have been developed by a conservator. (See Selected Resources, 7.)
- In Portland, Oregon, an outdoor sculpture conservator performed three treatments between 1994 and 1996 for the Regional Arts & Culture Council. As part of each treatment, he trained art students and candidates for conservation study in maintenance practices. The public art manager participated in the training to provide knowledgeable oversight in the future. In 1996 the council produced a videotape that the conservator will incorporate into future maintenance training and announced plans for a fund-raising campaign for maintenance. In addition, a conservation technician annually supervises high school students in the washing of an outdoor sculpture they previously washed on their own.
- The Chicago Park District, Illinois, added a conservator of outdoor sculpture to its staff to treat and oversee daily maintenance of 130 artworks. He works with groups of up to 10 people divided into teams of three or four with one well-trained person on each team. He conducts all training on-site. Individuals are assigned to tasks based on their skills and proficiency. Technicians start with simpler tasks like washing and waxing. Approximately 20 people have been trained between 1991 and 1995. He does not use volunteers because of their lack of knowledge and experience and possible legal consequences.
- In Bethpage, Long Island, New York, a volunteer who is not trained in maintenance practices waxed a memorial, Fire Rescue, annually for more than 25 years. In the opinion of many professionals, the artwork is in good condition despite a salt-air environment, illustrating the value of simple preventive maintenance. Although this effort works well, many other examples of well-meaning, untrained and unsupervised volunteers taking action on outdoor sculpture show results ranging from harmful to disastrous, causing irreparable damage.

Generally, those polled agreed that as a technician's familiarity with materials and techniques increased, less oversight was required. All noted that the training process was long and involved and should include follow-up refresher courses. Labors associated with treatments of monuments and outdoor sculpture are not unlike many other maintenance activities. Sensitivity to the subtleties of those treatments, however, is of paramount importance.

C O V E R C O S T S

Underwriting Maintenance

As you make the case to establish a maintenance program for

your collection of outdoor sculpture, you must include a plan to cover the costs of implementing such a program. In a number of straightforward and creative ways, owners and administrators of outdoor sculpture are underwriting the costs of regular maintenance of their artworks. This section illustrates six:

- Reallocating percent-for-art funds
- Budget line items
- Adopt maintenance project
- Restricted acquisitions
- Grants assistance
- Local resources

Reallocating Percent-for-Art Funds

Many cities and states require a percentage of construction funds be set aside for the commissioning of art to enhance new buildings. Some locales have modified their ordinances — generally termed percent-for-art — to permit a percentage of those funds be reallocated for maintenance of existing artworks. In Buffalo, New York, for example, the city council passed such an ordinance in 1991. (See Selected Resources, 1.)

According to David Granville, executive director, Buffalo Arts Commission, “To use city funds, we have to fit our needs to the city’s terminology. Maintenance for the city means lube jobs and tune-ups. So we termed routine, annual care of our collection of outdoor sculpture preservation treatment. Older pieces receive the initial conservation treatment and later receive an annual preservation treatment in the years that follow. The new pieces are automatically slated to receive an annual preservation treatment, following their installation, which is funded by a fee based on 10 percent of the piece’s worth.”

Officials of Hillsborough County, Florida, in 1995 reallocated the existing art fund for required maintenance uses. Artworks in place prior to 1989, the year of the original

ordinance, do not generally benefit from the mandate. Jan Stein, coordinator, Public Art Program, manages the county's collection of more than 15 contemporary installations, including a very small percentage of works that are ineligible for the reallocated maintenance money. "We are pleased that the ordinance allows the county to fund the needed care for its most recent pieces: our challenge now is how do we accommodate the maintenance needs of the sculpture installed prior to 1989." Ongoing public education and close collaborative efforts between citizens, historians and the county to fund the proper care for "older, significant works" is happening now with a county-citizen collaboration for conservation.

The Public Art Committee's plan is to continue its sensitivity to maintenance issues for its contemporary collection, beginning in the early phase of the commissioning process. Stein notes, "During the preliminary, artist proposal phase, the county is contemplating consulting with conservation professionals to determine what the county's long-term responsibilities would be for maintaining a particular public art commission. In this way, the county will demonstrate accountability to its citizens, care for its art and the successful realization of all of the goals of its Public Art Ordinance."

Budget Line Items

In 1982, the Fairmount Park Art Association (FPAA), a private nonprofit group, took the lead in Philadelphia as an advocate and practitioner of proper preservation of outdoor sculpture. With grant support, the FPAA chose 25 sculptures for conservation treatment with the understanding that regular professional maintenance of the pieces would be necessary. Maintenance costs are now included in the FPAA's annual budget. Initially the treatment was discussed in numerous public forums in order to educate as many people as possible about the process. Press events continue to be carefully orchestrated around the sculptures' annual spring cleaning. As a private membership organization, the FPAA has been able to provide ongoing maintenance to those pieces specifically and advocacy for proper care of Philadelphia's sculpture in general. Public education and the much-improved appearance of the sculpture have resulted in increased public interest and an expanded constituency of supporters. (See Selected Resources, 10.) The City of Philadelphia also benefits from a Conservation Advisory Committee, created to advise the Philadelphia Art Commission in its treatment and maintenance of public art under the jurisdiction of the city.

In 1985, the City of Tampa, Florida, created its percent-for-art program, funded by a one-percent set-aside from its municipal construction budget. Maintenance of outdoor sculpture was listed as an acceptable expenditure and has been a budget line item for a decade. For

fiscal year 1996, to further safeguard maintenance funds, the Public Art Committee established in its annual goals and objectives that approximately 15 percent of that one percent would be allocated specifically for maintenance and restoration. In addition, several artists have elected to maintain their own work, separate from the fund. Often these have been community projects in which the public art program provided assistance but not funding. A long-range master plan for the city's Art in Public Places program that would ensure the continuing maintenance of the city's collection is currently being discussed.

The City of Dayton, Ohio, enlarged its Repair & Replacement Schedules to include public art in 1994. According to Craig Southerington, urban design manager, "After the SOS! survey was completed, we realized our liability. We knew what we owned and so were able to make a case to the city commission that public art is part of the Dayton infrastructure. It worked." A professional assessment of the collection ranked the artworks by need and estimated the costs of treatment and maintenance. "That's been our work plan ever since." Southerington notes that the budget allotment is insufficient to cover all costs. "We try to save the allotment for major repairs and replacements and let the appropriate department — parks or public works or whatever — pay for regular maintenance of a piece. When we install a costly piece for which we'll buy insurance, the premiums will most likely come from the repair account." (See Selected Resources, 11.)

In summer 1996, the City and County of Denver amended its municipal code regarding public art. Maintenance of an artwork, as distinguished from repair or restoration, and the direct and indirect costs are the responsibility of the user agency. The city's policies and guidelines, 1997–2000, reinforce this idea, advising department heads that "the repair and rehabilitation of existing public art is being included again in this year's six-year planning. The nature of the work on these pieces dictates that it be funded through the capital improvements fund. Routine maintenance will be treated as an operating cost for the agency that sponsored and/or benefits from the piece." (See Selected Resources, 13.)

One avenue to raise the consciousness of mayors about city design and care and value of related elements, like public sculpture, is through participation in the Mayors' Institute on City Design. In symposia and alumni activities, mayors and designers discuss specific problems facing cities and examine a broad range of ideas, precedents and improvement strategies. For information to give to your mayor, write to Mayors' Institute on City Design, Harvard University, Graduate School of Design, Cambridge, Massachusetts 02138-3800.

Adopt Maintenance Projects

Baltimore, Maryland, nicknamed the “Monumental City,” was the first municipality in the United States to design a comprehensive program for the preservation of its 45 outdoor bronze monuments. By 1986, the city had provided conservation treatment to all of its municipally owned outdoor bronzes and, until the 1990s, budgeted regular maintenance. Cal Buikema, recently retired as associate director, Department of Recreation and Parks, City of Baltimore, coordinated the maintenance. “All our public sculpture comes under our department by ordinance or law. For years our primary maintenance response was just to repair breaks. We didn’t attempt to do preservation as we understand it today. That response changed abruptly in the late 1980s when we were advised that many of our sculptures were deteriorating due to air pollution. We worked with the Commission for Historical and Architectural Preservation that developed the preservation program for the sculpture. The first few years of initial work came out of the city’s capital budget. Now we try to take a small portion of our parks budget for maintenance of approximately one-third of the collection each year.”

In 1993, Beverly Fuller attended a symposium organized by Baltimore SOS! where she learned that the city’s bronze sculpture maintenance fund was half what it used to be and the available funds were stretched to the limit. Her own Mount Vernon-Belvedere neighborhood is home to two-thirds of the city’s bronze sculptures. She came away from the symposium ready for action. “If these monuments are so important to our neighborhood,” she says, “we need to take an interest.” Fuller and Cindy Kelly, coordinator, Baltimore SOS!, secured annual pledges of between \$250 and \$1,000 a year for five years from businesses, organizations and individuals for the maintenance of 17 artworks. “I wanted to make the pledge a minimal dollar amount so that it would slide into an organization’s budget, year after year,” Fuller notes.

Cyclical maintenance of the Confederate monument in Rockville, Maryland, is funded by the local camp of the Sons of Confederate Veterans. Since 1989, 20 percent of the monuments to Maryland’s military heroes have been treated under the auspices of the Maryland Military Monuments Commission, a group of private citizens appointed by the governor. “In some cases, a local group will be willing to pick up the annual maintenance costs after a monument has been restored,” says Nancy Kurtz, commission member and monuments survey administrator for the Maryland Historical Trust.

The City of Dallas’ Cultural Policy specifies maintenance responsibilities for new artworks commissioned through the city’s Percent for Art Program, for existing artworks already in the city’s collection and for works acquired via donation. In 1995, the City of Dallas added Pioneer Plaza Cattle Drive to its public art collection, a herd of 40 bronze longhorn steers, complete with three cowboys on horseback, by Texas sculptor Robert

Summers. Because the steers are part of a total project for Pioneer Plaza, including landscape, the maintenance responsibilities were not finalized until late 1996. (See Selected Resources, 14.)

During the spring and summer of 1996, the city's Office of Cultural Affairs, in cooperation with the city program Juveniles Going in Positive Pathways, conducted a workshop dealing with the surface maintenance of public sculpture. The workshop was attended by eight teenagers ranging in age from 13 to 16 and eight Park and Recreation Department staff members. Following a slide lecture introducing the participants to outdoor sculpture and the significance of public art, a professional conservator and the office's collections manager, Manuel Mauricio, supervised the youngsters and staff members in a hands-on experience — washing and waxing two of the bronze steers and one cowboy on horseback. The program continued with regular maintenance sessions throughout the summer during which the supervised youngsters washed and waxed other city-owned outdoor sculptures at locations such as the Dallas Zoo and two branch libraries. Tentative future workshops will expand involvement to other potentially interested groups including city staff from various departments. The Office of Cultural Affairs estimates that the young volunteers will assist in the regular maintenance of from 15 to 20 artworks during the first year. "The goals of this project relate not only to the physical maintenance of the city's artworks, but to the development of a genuine appreciation for outdoor sculpture on the part of future citizen art supporters," says Mauricio.

Restricted Acquisitions

Prudent owners, administrators and commissioning agencies have begun to look critically at maintenance needs and costs of outdoor sculpture that is commissioned or offered as gifts. In Los Angeles, for example, a conservator has served on selection panels of the Public Art Board since 1995, alert to maintenance issues that can be alleviated or eliminated to reduce the costs of long-term maintenance. In San Francisco, the art commission has a departmental policy requiring that maintenance money accompany new gifts of outdoor sculpture. The commission has proposed that the Public Art Ordinance be amended to allow the money to be pooled for maintenance of public art.

Many commissioning agencies have artists complete forms regarding maintenance of their artworks, requesting, among other items, a recommended schedule of maintenance, media, finishes, materials, drawings for mechanical connections, and names and addresses of fabricators and/or foundries, if appropriate. A statement about the artist's intent is also

solicited. SOS! urges sculptors and commissioning agencies to remember to notify the Inventory of American Sculpture of new, relocated or removed artworks at (202) 786-2384.

In Philadelphia, at the design stage, sculptors must submit maintenance plans with estimated implementation costs; the sponsoring agencies consider maintainability of the piece as one factor in determining if the design will be accepted. Artists who contract with Tucson's Art in Public Places Program must submit a maintenance plan that includes maintenance requirements, costs, needs and schedules. Final payment is withheld until the maintenance plan is received. Routine maintenance work is completed by the appropriate city department. If serious work is needed, the artist is given the chance to bid first. As a part of any contractual agreement with the City of Tampa, an artist must submit a "Maintenance and Inventory Sheet" that includes the details of the maintenance and ongoing care of the artwork and any annual cost projections.

Members of Delta Sigma Theta Sorority, Inc., commissioned a bronze sculpture honoring the African-American veterans of the Revolutionary War for Valley Forge National Historical Site, Pennsylvania. As required by the National Park Service, the sorority contributes each year for the maintenance of the sculpture. As an alternative the donor can set terms regarding maintenance of a gift. In 1984, the Daughters of the American Revolution, Enoch Crosby Chapter, Putnam County, New York, donated a bronze equestrian statue of Sybil Ludington to the county. The piece was given with restrictions requiring annual maintenance and treatment when necessary; if the donor's terms are not met, ownership reverts to the DAR. Thus far, the county has lived up to its part of the agreement. In the late 1980s, when negotiating with the City of Dallas, the organizers for Dallas Adopt-A-Monument agreed to raise private funds to treat public sculpture if the city agreed to provide ongoing maintenance. To date, nine city-owned sculptures have benefited from this partnership. Treatment and maintenance costs for an additional seven artworks have been paid for by the City of Dallas. (See Selected Resources, 15.)

Grants Assistance

As a result of SOS!, the Ohio Arts Council revised its grant-making guidelines to encourage applications regarding conservation of and education about outdoor sculpture. Under Special Project Grants in the council's 1995-96 guidelines, applicants read that the council will "also consider projects that deal with public art issues, such as the development of policies for cities, educational programs, exhibition programs, community planning and programs that address conservation issues and condition assessment studies. Funding is

not available for maintenance of sculpture.” Initial conservation treatments will be considered, however.

In May 1995, the Capitol Square Review and Advisory Board, Columbus, secured a grant from the arts council to work with a conservator of outdoor sculpture to develop a maintenance plan for six sculptures on the statehouse’s grounds. “Through the Ohio Arts Council’s grant, we were able to preserve several significant pieces of Ohio’s history,” said Ron Keller, executive director of the Capitol Square Review and Advisory Board. “Statues that had suffered decades of erosion and abuse have been restored to their original splendor. And now, with the seasonal maintenance plan that was provided to us by the conservator, our staff will be able to maintain these treasures for generations to come.”

Thanks to another state arts council grant, the Cincinnati Park Board hired a conservator to complete a professional inventory with condition assessments for 22 artworks. As a result of the assessments, a long-term maintenance plan is being developed by the Department of Park Planning. Funding is being sought to hire a conservator to treat two works of art that were identified at risk. In addition, *A Guide to Art and Architecture in Cincinnati’s Parks* was published to raise public awareness and increase educational opportunities.

Local Resources

Local cultural groups and their members are natural allies in fund-raising or public awareness campaigns to create or strengthen maintenance plans and policies for outdoor sculpture. Wisely, the private, nonprofit, volunteer Dallas Adopt-A-Monument organization uses its local museum, the Dallas Museum of Art. The museum’s director was one of the original members of the Adopt-A-Monument Advisory Board and the museum’s conservator of outdoor sculpture provides conservation treatment and maintenance to city artworks underwritten by Dallas Adopt-A-Monument.

In St. Joseph, Michigan, the staff at the Krasl Art Center has taken the reins to coordinate the community effort to treat and maintain its sculpture. In advance of launching an adopt-a-sculpture campaign, the staff organized a concerted, calculated public awareness effort, reasoning that they should first create a climate of support for the sculpture by educating the public about the collection. The “ask” should then be easier and more effective. Summertime SculpTour, a free guided walking tour, offered a firsthand look at the sculpture in St. Joseph. This community celebration incorporated actors, storytellers and musicians who gave the interpretation of outdoor sculpture a new twist. Next the newspaper gave front-section coverage to a professional conservator of outdoor sculpture as she

determined the conditions of the city's artworks; attention from a nonlocal expert moved sculpture up a notch on the media's priority list. The staff then invited representatives of local businesses, civic organizations and other potential sponsors to lunch at the art center and introduced the idea that they should contribute toward the sculptures' upkeep. Some did!

In addition to museums and cultural institutions, raise the issue of collection care for your favored sculpture with your universities and municipal offices. Three universities and two cities offer instructive examples. The Marshall M. Fredericks Sculpture Gallery, Saginaw Valley State University, Michigan, hosted Michigan SOS!, and its director, Michael Panhorst, served as the project coordinator. With an SOS! Incentive Award and matching funds provided by the Krasl Art Center and the Muskegon County Museum, a professional conservator provided condition assessments for 19 sculptures in two towns. She also met with the media, generating newspaper coverage in both communities. With her estimates for treatment and maintenance, the townspeople began raising money to underwrite those costs. In summer 1996, fund raising and preparation of requests for proposals for treatments continued in Muskegon, and conservators treated four works in St. Joseph. (See - Selected Resources, 2.)

"Until SOS! began inventorying the sculpture of New Jersey, Rutgers University had continuing confusion over which branch of the university was responsible for the maintenance of their outdoor sculpture," says Meredith Arms Bzdak, coordinator, New Jersey SOS! "One intern made it her goal to document all works at Rutgers and then educate the staff about the condition of the outdoor sculpture. Her efforts have resulted in the recent cooperation between the university's facilities department and its art museum to work out a strategy for conserving and maintaining the works on campus."

As superintendent of grounds at the University of Missouri-Columbia, Tom Flood oversees everything from snow removal to landscaping. When faced with the challenge of treating three severely deteriorated and vandalized bronze reliefs on campus, he turned to Missouri SOS! for guidance. Now he is an enthusiastic believer in the cause of preserving outdoor sculpture and an advocate for preserving the university's monumental legacy. He was "very open to learning what to do and how to do it correctly," says Marie Nau Hunter, Missouri SOS! coordinator with the Museum of Art and Archaeology. She helped Flood identify a professional conservator to clean and restore the three bronzes in the summer of 1995. Subsequently Hunter and Flood continued to talk about other sculptures that need attention and his division prepared a proposal for maintenance of all outdoor sculpture on campus. These highly visible reliefs "raised awareness of outdoor sculpture and the need for routine maintenance of it as part of the university's facility," Flood observes.

The Mayor's Office of Art, Culture and Film, Denver, established its 20-member Interagency Maintenance Task Force in 1994 to consider sculpture maintenance issues citywide and review proposals for new commissions. Greg Esser coordinates the public art program and the task force. "Since the formation of this group, approximately \$300,000 in new city funds have been allocated for the repair and restoration of city-owned artwork. In two years, we've compiled a computerized inventory of the city's collection, provided insurance for selected works, developed a citywide map, color coded by primary material, to assist in maintenance planning, and begun stage one planning for an adopt-an-artwork program." In addition, the task force assisted with a 1996 revision to strengthen the public art ordinance to address the need for maintenance and to allocate a percentage of new art projects to a dedicated maintenance fund. (See Selected Resources, 13 & 16.) The City of Tucson has an interagency task force as well. Organized by the Tucson/Pima Arts Council, with direction from the city's Budget and Research Department, the task force includes, as equal members, representatives from the arts council and city departments of budget and research, operations, transportation and parks and recreation, as well as the facilities, design and construction department at the University of Arizona. Task force members agree to take responsibility for the artworks in their jurisdiction once condition assessments are completed by a conservator. (See Selected Resources, 17.)

A Mix of Solutions

In southern California, three cities, a museum and developer reflect the range of options confronting maintenance issues. The city of Brea, California, has a collection of 106 largely contemporary, privately owned artworks. In 1975, the city initiated a percent-for-art program for private construction that did not include maintenance requirements. Improved practices have been in place since 1984 to better safeguard the artworks. Now artists must provide written guidelines for maintenance, and plans for each sculpture must be reviewed by a structural engineer. An annual monitoring of the condition of the collection is completed by members of the all-volunteer cultural arts commission. Using a short checklist style questionnaire, commission members check for water damage, landscape problems, paint and lighting needs. If an artwork requires attention, staff then track down the artist who suggests mitigation and advises the property owner. Repairs and maintenance are scheduled by the owners themselves. If recommendations are ignored, punitive action is handled by code enforcement officers.

In the City of Escondido, public art is developer-funded. Installation, future preservation, maintenance and replacement, if necessary, must be guaranteed for the life of the project in

conformance with the city's zoning code. The developer is obligated to maintain and repair the art "in accordance with accepted curatorial standards set by the Public Arts Commission." Stolen or vandalized art must be replaced or repaired as closely as possible to conform with the originally approved art. If an artwork is not maintained, the developer is asked to fix it or pay the art fee set by city ordinance, based on a current fee schedule and the square footage of the improvement, building or structure for which the art was required. Today the fee is 30 cents per square foot after the first 1,800 square feet. (See Selected Resources, 18.)

Four Forty-Four Plaza, Los Angeles, reported on maintenance of its collection of outdoor sculpture in its February/March 1996 newsletter for plaza tenants. "Like a car or a boat, art that is placed outdoors requires ongoing care. . . . Unlike a boat or a car, the conservation of works of art requires attention from professional art conservators who not only understand mechanisms of deterioration and preservation, but who are sensitive to the aesthetic and philosophical concerns of the individual artists." The deterioration and professional treatment of artworks by Mark DiSuvero, Frank Stella and Robert Rauschenberg are described. "To maintain these pieces in the future, the conservators will train the maintenance staff of the building in routine cleaning procedures and will visit periodically to monitor the condition of the sculptures in the collection."

A private, nonprofit organization called Urban Art, Inc., is coordinating a project for the City of Los Angeles in which two professional conservation firms, working collaboratively, will provide surveys, assessments and recommended treatments for 60 works in the city's two oldest parks. They will train park employees in basic cleaning practices. Additionally, Urban Art will produce bilingual brochures describing the works in both parks to be distributed by neighborhood cultural and community organizations. The San Diego Museum of Art also contracted with a conservator of outdoor sculpture to train its preparators and registrars in regular maintenance practices. A trio of videotapes was produced as a staff training tool.

MAINTENANCE TIPS

A Baker's Dozen

Maintenance is one piece of a collection management plan,

an overall strategy to responsibly care for your outdoor sculpture. A collection management plan sets out clear guidelines regarding care of your outdoor sculpture and can help prevent ill-advised decisions that might harm the sculpture and attract unwanted publicity. Your plan describes the collection, discusses the roles and responsibilities of staff and consulting professionals, identifies records and other documentation, notes steps taken to minimize threats, itemizes acquisition and deaccession policies, and lays out the plan to care for the collection, including your maintenance policy. (See Selected Resources, 9 & 19.) Here are 13 practical tips to implement maintenance.

1. Acknowledge that your outdoor sculpture needs maintenance. If you have ignored maintenance, how much damage has occurred because of your unwritten policy of benign neglect? How much is due to ignorance about the necessity of maintenance?
2. Ask for assistance and advice. Remember that your actions may have irreversible effects. Are you out of your element? Do you really know how this procedure will turn out? Where can you turn for help?
3. Think out the entire process. What is the purpose of your actions? What will be the consequences? What can go wrong? In the long run, will the sculpture be better off once the work is performed? Is there a commitment to ongoing maintenance?
4. Use the correct tools, equipment and personnel for the job. If the budget doesn't include the appropriate brushes, don't substitute. Don't allow custodial or maintenance staff to work on outdoor sculpture without adequate training and professional supervision.
5. Use clean materials and equipment. Keep them for the exclusive use of maintaining the outdoor sculpture.
6. When performing other work around the sculpture, always take a "quick look" to assess any new maintenance needs or problems. Are mortar joints sealed? Is the wax coating still intact?

7. Be wary of products with only hearsay endorsement. Never experiment on a sculpture. Always perform initial tests on expendable materials and in inconspicuous areas. For bronze, experiment on old faucets, valves, fire hose nozzles and connections. Always test new materials or household products on expendable material and consult with a conservator.
8. Be skeptical of practitioners with “secret formulas” for treating your collection. Who can you call for a reference? Follow through and make the call! Remember sales people are in the business of selling. Your concern is responsible preservation.
9. If the maintenance appears to be causing damage, stop. Do not continue. Determine what the problem is and where you can go for help.
10. Know when to contract for services. Major repairs require special expertise. Who can you get to recast a missing piece? Where can you get advice on moving your artwork?
11. Do not allow other maintenance procedures to damage or endanger outdoor sculpture. Is the lawn mower chipping the pedestal? Does your sprinkler system spray on your sculpture? Is there any chance that paint spraying might blow on your sculpture?
12. Keep records of maintenance procedures and materials used. Don’t rely on recollection.
“Wasn’t that cleaned when Bill Clinton ran
for re-election?”
13. Insist that commissions for new monuments and outdoor sculpture include funding for long-term maintenance. Turn down gifts that do not include those funds. Question the acquisition of high-maintenance artworks.

SELECTED RESOURCES

In developing or revising your sculpture maintenance program, you

can capitalize on the experience of others. Good materials have been developed by several agencies and organizations concerned with collection care issues and outdoor sculpture. There is no single repository or reference work listing all those groups or collecting their written materials, such as forms, ordinances, policies, job descriptions, handbooks, press releases, requests for proposals and contracts. A limited selection of additional resources follows. Except for resources 3, 4 and 17, which are complete, all other resources are excerpted.

A. The Buffalo Arts Commission shall have the power and it shall be its duty to: . . .

(5) [Added 4-2-1991, effective 4-16-1991]

Annually submit a capital budget request equal to or no less than one percent (1%) of the city's projected capital improvement budget based on the following:

- (a) The Commission's plans for conservation of city-owned works of art;
- (b) Plans to commission new works of art; and
- (c) The Commission's review and recommendations of projects enhancing the general aesthetic appearance of city property.

7. Model Maintenance Program

7.1 Organization of the Maintenance Program

It is recommended that during the initial conservation treatment program an individual in the Muskegon community be assigned the job of coordinating future maintenance activities. The coordinator will identify individuals in the community who can be trained by the conservation team to assume technical support roles between the conservator's return visits, described below. The coordinator may be a salaried person or a volunteer and will have access to the conservation treatment records and oversee the updating of general files and individual object files for the outdoor sculptures in Muskegon. It will be useful for these activities to be reported annually to a municipal agency or local institution so that a wider circle of individuals are involved with the City's preservation program on a regular basis.

7.2 Activities of the Maintenance Program

One year after treatment the monument will be examined by the maintenance program coordinator, and observations recorded on a work sheet form approved by the conservator. After any unusual problems have been addressed, the sculpture and base will be maintained by the technical support team. They will wash with hose water and a neutral detergent using soft brushes. The monument will be well rinsed and the bronze figure dried with lint free cotton cloths. After thorough drying, the bronze surface will receive a thin coat of paste wax, the brand to be specified by the conservator. The wax will be applied by brush thinly and evenly at ambient temperature. When dry the wax will be buffed. The stone base will not be treated other than by washing and rinsing. A work sheet will be completed and filed.

Two years after treatment the sculpture will be maintained by the conservator who treated it working together with the local technical support team. This will provide the opportunity for the owner and conservator to assess the effectiveness of the treatment and the maintenance program and to make any adjustments.

It is recommended that the cycle of maintenance be continued, one year by a local technical support team and the following year by a professional conservation company. After a maintenance program is well established, the owner and conservator may agree that the non-professional team will assume more responsibility and the conservator will return on a less frequent basis.

In order to preserve the best appearance of the monuments and to address small problems before they become big problems, the maintenance coordinator should keep close contact with personnel who are assigned regular landscaping and facilities maintenance work around the monuments.

Title: Joan of Arc, Maiden of Orleans

Artist: Emanuel Fremiet

Location: 39th & NE Glisan

Date of examination: 10/18/94 (amended 9/18/96)

Treatment Priority: 1

Materials:

Sculpture: Gilded bronze w/repousse copper flag.

Base: Granite.

Overall condition:

Structure: The flag has been broken off of the sculpture, and a section of the pole is missing.

This missing section has been replaced with iron and aluminum pipe. The ends of the flag are missing. The crown of leaves is missing from Joans' head.

Surface: The gilding is almost completely missing except in a few protected areas. The surface is a blue green from copper corrosion products, with pollution accretion on protected surfaces. There is graffiti on horse's face. The base is dirty with pollution accretions.

Treatment Recommendations:

Work location: On-site.

Equipment: Enclosed scaffolding. Temporary fencing is needed.

Structure: Remove iron and aluminum elements and replace with bronze. Refabricate and attach crown and ends of the flag. The vegetation around the base will need to be trimmed.

Surface: Clean with medium pressure water blasting to remove all corrosion products and expose bright metal. Apply an appropriate metal primer. Size and gild.

Maintenance recommendations: Annual inspection; spot regilding as needed. Consider wax protective coating.

Cost estimates:

Treatment:

| | |
|---|----------|
| Structural repair, welding and fabrication; 4 days; | \$3,200 |
| Scaffolding, protective sheeting, and fencing; | \$4,500 |
| Corrosion removal and surface preparation; 6 days; | \$4,800 |
| Gilding; time and materials; | \$15,000 |
| Clean base; 1 day; | \$800 |
| Other materials; | \$1,000 |
| Documentation, reports and administration, 1 day, | \$800 |
| Total estimated treatment cost: | \$30,100 |

Maintenance: 4 days annually: \$640

Maintenance endowment: \$12,800

Cost for adoption: \$42,900

Maintenance Agreement for Sculpture in Portland Parks

Portland Parks & Recreation
Regional Arts & Culture Council
September 1996

The Regional Arts & Culture Council (RACC) and Portland Parks & Recreation (PPR) recognize the importance of ongoing maintenance of outdoor sculpture found in the City's parks. The PPR mission includes preserving and enhancing the parks legacy and promoting appreciation of the natural environment.

Since an adequate funding source for the conservation and maintenance of all City-owned outdoor sculpture is yet to be created, RACC is seeking to establish partnerships with appropriate City Bureaus to share the costs of ongoing maintenance of outdoor sculptures. The intent of this policy is to identify appropriate PPR participation in the maintenance of City of Portland owned outdoor sculptures located in Portland parks.

Preservation/Maintenance for Sculpture in City Parks

Statement #1: Major conservation and/or routine maintenance of sculptures in Portland parks is necessary in order to prolong the life of the sculptures and improve the aesthetics of individual sculptures and fountains. (See Attachment 1 for list of sculptures and fountains covered by this agreement). Of equal importance is heightening public awareness about the importance of caring for and properly maintaining Portland's heritage of outdoor sculpture. Increased public awareness of services are objectives of both PPR and RACC.

Application 1: PPR will notify RACC's Public Art Program of the need for maintenance/repair of outdoor sculpture in Portland Parks.

Application 2: All routine maintenance will be performed on-site. Routine maintenance is defined as specified preservation activities outlined in the "maintenance specifications" of the conservation report provided by the conservator after a conservation treatment has occurred. PPR agrees to provide any necessary equipment for ongoing maintenance that is unavailable to RACC (e.g., ladder, access to water source, water hoses, power washer).

PPR will provide the maintenance of the stone bases of sculptures in consultation with RACC. It is agreed that neither air abrasive techniques (e.g., sandblast, baking soda blast, walnut shell blast) nor acid-based cleaners will be used to clean stone pedestals unless such a process is approved by a professional art conservator. The maintenance of the metal sculptures is the responsibility of RACC although removal of minor graffiti by PPR staff can be arranged on a case-by-case basis.

Application 3: RACC, in consultation with PPR, will determine the need for any major conservation projects for sculptures in the parks. A major conservation project is defined as any project that requires more than washing and/or waxing of a sculpture. A professional conservator will be hired to oversee any such project and will be compensated by RACC.

Application 4: RACC, in partnership with PPR, will provide press release materials to members of the press for a conservation project, if deemed necessary.

Statement #2: RACC and PPR recognize that incidents of graffiti have dramatically increased over the past few years and acknowledge

the importance of removing graffiti as quickly as possible using effective removal methods that are not damaging to the sculptures or to the stone pedestals.

Application 1: Graffiti must be removed as soon as possible after it has been discovered — ideally within 48 hours. In difficult cases, it may be necessary to conduct test trials to determine appropriate removal materials and equipment. These tests will be conducted under the auspices of RACC and written reports will be forwarded to PPR. PPR personnel may participate in these test trials with their supervisor's approval.

Health and safety regulations appropriate for the materials/equipment used will be followed in all graffiti removal work. Only materials and methods approved by a conservator may be used. Efforts should be made to remove highly visible and more disagreeable graffiti before less offensive matter. Where graffiti has a high visibility impact, its removal should be given a high priority regardless of its content.

Application 2: PPR will remove minor graffiti (i.e., isolated incidents of tagging) from stone bases/pedestals in consultation with RACC. RACC will provide PPR with a list of appropriate graffiti removal products for stone pedestals. RACC will provide on-site training and/or a conservation backup consultant on a case-by-case basis.

Application 3: For major graffiti removal projects, a conservator/conservation technician will be consulted. For the purposes of this agreement, *major* is defined as heavily graffitied pedestals or graffiti covering more than one side of several pedestals in one location. Major graffiti removal may be turned over to an appropriate professional at the discretion of RACC.

Application 4: It is agreed that neither air abrasive techniques (e.g., sandblast, baking soda blast, walnut shell blast) nor acid-based paint removers will be used to remove graffiti from stone pedestals.

Statement #3: An adequate funding source for the restoration and/or maintenance of all City-owned outdoor sculpture is yet to be created. Once a maintenance funding source is established for a sculpture, all maintenance and conservation expenses will be charged to that fund.

Application 1: Until that time procedures as outlined under Statement #1 will be followed.

This agreement is hereby agreed to by:

[appropriate person from PPR] Date

[appropriate person from RACC] Date

1. Introduction

Central Park Operations is committed to removing all graffiti from the park within 24 hours of being reported. To achieve that goal we operate a Graffiti Removal Crew whose primary role is the locating and removing of graffiti. The crew consists of 2 technicians. . . . They are equipped with a truck, water supply, pressure washer, safety equipment, and all the necessary chemicals and miscellaneous materials they require. The crew members are supported by an historic preservation staff that monitors the program on a daily basis.

2. History

The Graffiti Crew was created in 1983. An historic preservation specialist was retained to analyze the materials of both the graffiti and the underlying substrates, test and recommend removal methods, and train staff in the safe and effective application of these methods. As the quantity and type of graffiti changed over time, methods and materials have been reviewed and revised and staff has received additional training.

3. Operation

Graffiti Removal Technicians must be thoroughly trained and periodically tested in all phases of their operations. They must demonstrate mastery of graffiti removal theory, practice, equipment operation and safety. Once they are able to demonstrate a thorough understanding of safety, handling, and use of graffiti removal materials and equipment, and an understanding of the individual effects of all materials and equipment, they review the following guidelines before commencing a treatment.

3. Methodology

When graffiti is either reported or observed during the crew's regular rounds, several factors must be weighed before it can be removed.

- a. What is the graffiti material?
- b. What is the underlying material (substrate)?
- c. What are the environmental conditions?
- d. What are the safety concerns specific to this graffiti incident?

An analysis of the above 4 conditions will provide the information to select one or more removal methods. Selecting the correct method will depend on the effects of the removal treatment.

a. Graffiti Materials

Graffiti can be applied either directly to a substrate or to another material adhered to a substrate (stickers).

I. Graffiti applied directly to a substrate

Paint, applied with spray cans, brushes or directly
Dye, (Markers) including metal markers and inks
Other Pigments, including pencil, crayon, chalk etc.
Incised, scratched into the surface

II. Graffiti applied to a surface that is adhered to the substrate.

Stickers, including broadsides, signs and "Hello" stickers

b. Underlying Materials (substrates)

There are a number of materials that receive graffiti in Central Park.

- I. Wood, painted or unpainted
- II. Stone, silica based like granite, schist, and sandstone, or calcium based like limestone, marble and concrete
- III. Iron, bridges, lampposts, railings, always painted
- IV. Bronze, statues, some lamps and fixtures
- V. Other Metals, aluminum, stainless steel etc.
- VI. Asphalt, paving and hex-blocks

c. Environmental Conditions

Conditions that affect outdoor graffiti removal operations include:

- I. Weather, temperature, rain, snow, frost etc.
- II. Location, access, drainage, runoff, plantings, traffic, pedestrians etc.

d. Safety Concerns

We have studied the effectiveness of various chemicals and methods used in removing graffiti. New products are often tested in hopes of finding safer and more effective methods. Nevertheless, graffiti removal chemicals and techniques can be dangerous to operators and others. Considerations to be addressed include:

- I. Operator, Are the technicians trained in the proper use of the chemicals required? Are Material Safety Data Sheets (MSDS) studied and kept in a binder at the job site? Is proper safety equipment provided and used? Are there special conditions or any other factor that will effect operator safety?
- II. Users, Are all park users properly notified about graffiti removal practices and properly protected from all removal operations? Are children present at the removal location? Are pets present? Are there special conditions or any other factor that will effect user safety?
- III. Environment, Are plantings adjacent to the graffiti site? Where will the rinse water run-off to? Are water bodies and fountains protected from run-off? What will be the residue of a removal procedure and how will it be cleaned up?

Introduction

Volunteers have their own sculptures to care for through the year under supervision of the Curator. No sculptures are included that are stone, that have intricate undercuts, that indicate strenuous applications or that require the use of a ladder. Each one can be cleaned and treated easily. Our conservator has recommended washing and waxing a minimum of six (6) times per year with continual monitoring to remove organic material and debris before it becomes excessive. I suggest that you plan to wash and wax in early spring, late spring, summer and early fall (minimum), adding a final cleaning in late fall if feasible.

Two utility carts are available for use in the sculpture gardens. They are kept in the store room at the Pavilion. With each cart is a plastic bucket, brushes, detergent, wax, hoses, spray nozzle. I will try to keep some cloths there but cannot promise that there will always be a supply. Some volunteers have indicated that they would prefer to use their own cloths; this is a good option. A hose cannot be used on the pieces in the front room of the Small Sculpture Gallery because of the wooden pedestals. For these small pieces a spray bottle of water and extra towels can be used to wipe up any water from the pedestal.

At present there is no utility cart for the Wildlife Park.

Remember:

- A thin coating of wax is preferable.
- Watch out for fire ant beds.
- Take care if your sculpture is surrounded by plantings:
 - a. rinse all soap from the plantings
 - b. do not trample the plantings
 - c. rustle the leaves/ivy/undergrowth to flush out any wildlife before you step into the leaves/ivy/undergrowth
- Fill out your conservation sheet each time; a sample is attached.
- Always work from top to bottom so you don't forget any areas.
- Make sure the lid has been replaced tightly on the wax can.
- If you do not use your own cloths, let me know so I can make sure the cloths are clean and ready for the next person.

Cleaning and Treating

Required equipment: buckets, hoses, brushes, cotton rags, cotton towels, Ivory or Orvus detergent, Butcher's Bowling Alley Wax.

Procedure

Rinse the sculpture with water, using a wide spray — not a hard stream. This allows you to wet the surface and remove debris and some organic material (leaves, dirt daubers, spider webs, loose dirt, etc.)

Soap the sculpture from the top to the bottom using the large brush for large areas and the smaller brushes for small areas and crevices. Take care that you do not bump the sculpture with the hard surface of the brush. A twig is a useful tool to get into small areas and crevices. Make sure that all debris is cleaned from the sculpture, including any blanched wax that may have accumulated. Remember to clean the sculpture label too. You do not need to clean the brick pedestal, if one exists.

Rinse the sculpture thoroughly, spraying from as many angles as possible. This may take a long time. Keep checking to make sure that you have removed all visible soap. Also make sure that all soap is removed from the brick pedestal and from any plantings that may be near the sculpture.

If you can, allow the sculpture to air dry. If not, then dry it thoroughly with a clean dry cloth. You must be sure that the sculpture is dry since you cannot apply wax to any wet areas.

When the sculpture is completely dry, use a small cloth or one of the small brushes to apply a thin coat of wax from the top to the bottom. Work the wax into crevices using the brush. If the sculpture is warm from the sun, the wax will melt as soon as it is applied. Keep spreading the wax out over the surface of the metal. Make sure you have thinly covered the entire sculpture. Let the wax harden.

Use another clean, dry cloth to buff the sculpture. Do not use brushes. You may need to use a little elbow grease but be patient. Start from the top and work toward the bottom to ensure that you have covered the entire sculpture.

Fill out the conservation report. Give me as much information (detail) as you can about the condition of the sculpture as you found it and your observations as you cleaned it. I especially want to know about any sculpture areas that appear to be damaged, any damaged or missing labels, plantings that have overgrown the sculpture, and any unusual coloration (blue, green, white, black) on the surface of the metal which is not a part of the artist's patina.

In the periods between washing and waxing, observe your sculpture and remove spider webs, pollen accumulation, fertilizer, leaves and other debris by gently wiping or dusting the surface of the sculpture with a clean cloth. If the accumulation is great, pour water over the sculpture to remove the offending material. If this is not enough, then it is probably time to wash and wax again.

Be especially watchful for dry fertilizer which may rest on the surface of the sculpture. Fertilizer can damage the patina and corrode the bronze. If you observe small granules on the surface of your sculpture, remove it immediately. This can be accomplished by brushing it off (if the surface of the metal is dry) or by rinsing the sculpture completely (if the fertilizer has become damp or if the surface of the metal is wet). The goal is to remove all traces of the fertilizer as soon as possible.

You have been provided with complete information about the cleaning process for metal and stone sculpture. Please refer to this information when visitors stop to talk to you while you are working on your sculpture. You will be performing an important educational service by providing them with accurate information and orientation.

Editor's note: A list of volunteers with their assignments to specific sculptures for specific maintenance cycles then follows.

The following procedures are described for the performance of a variety of different maintenance procedures by individuals qualified to perform the work. These individuals may be sculpture conservators, hired under a contractual arrangement, or local NPS personnel trained to complete such work. They are not intended to provide “off the shelf” guidance for untrained individuals to complete work. Through inappropriate or improperly applied efforts it is very easy to convert a 5 day, \$5,000 job or need into a several week \$50,000 disaster, potentially with permanent loss of historic fabric and irreparable damage, as well. If you are not trained, or even if you have received training and do not feel competent to do a particular job, do not attempt it!

Although the graphic and the separate sections of these procedures seem to indicate that each is well-defined and applicable in all instances, this is not the case. Always remember, there is no one problem, and there is no one answer. Variations in treatment, from one degree to another, will be required for each sculpture; and often variation will be necessary between different areas of the same sculpture or monument. These variations can include adjustments, between treatments at different times or even between treatment of different elements at the same time.

There are undoubtedly numerous other materials, aside from bronze, from which sculpture and monuments are made (i.e., aluminum, zinc, painted metals, wood, stone) however, these are not included within these maintenance procedures. If you have something constructed of one of these materials you should contact a conservator, preservation specialist, exhibit specialist, historic architect or other such individual for guidance and development of specific procedures for each such monument.

The procedures discussed here are only relative to bronze sculpture or monuments, or elements, which have been, or are to be, treated in the “traditional” National Park Service methods as outlined in NPS-28, Guidelines for Preservation of Cultural Monuments which utilize waxes as a protective coating. They do not cover, and are not really applicable to other techniques or materials such as lacquer coatings. It is important to keep this in mind when following them.

Section I — General Information

The City of Philadelphia is soliciting proposals to undertake a condition assessment of its entire collection of public sculpture, which consists primarily of two- and three-dimensional outdoor works. Philadelphia's collection is one of the world's finest; it contributes to Philadelphia's renown cultural and physical environment. Each work of art is an irreplaceable asset. The City of Philadelphia seeks a city-wide assessment of the condition and status of each piece by a professional conservator with demonstrated experience in such undertakings.

The City of Philadelphia also seeks recommendations for the best method to proceed on a restoration program for this collection. This analysis would include an assessment of the major conservation issues, identification of the City's most urgent conservation needs and recommendations for a long term program for the restoration and maintenance of the City's collection.

This project is being coordinated by the Public Art Office on behalf of the Art Commission, which is charged with oversight for the care and maintenance of City-owned works of art. Proposals are invited for professional conservation services that will accomplish this effort.

1.0 purpose.

These guidelines are adopted by the Broward County Cultural Affairs Council for the purpose of establishing procedures for implementing the public art and design program recommended in the Public Art Master Plan and adopted as Ordinance No. 95-20, passed by the Board of County Commissioners on April 11, 1995. . . .

10.0 maintenance and conservation of county art collection.

10.1 A review process shall be established by the Public Art and Design Committee to meet the following objectives:

10.1.1 To ensure regular maintenance of artworks in the County Art Collection to preserve them in the best possible condition.

10.1.2 To provide for the regular inspection for condition and location of artworks in the County Art Collection.

10.1.3 To establish a regular procedure for effecting necessary repairs to artworks in the County Art Collection.

10.2 Responsibilities.

10.2.1 Artist.

a) Within the terms of the contract, that artist shall guarantee and maintain the artwork against all defects of material or workmanship for a period of one (1) year following installation.

b) Within the terms of the contract, the artist shall provide the Public Art and Design Committee with detailed drawings of the installation of the artwork and with detailed instructions regarding routine and extraordinary maintenance of the artwork.

c) Within the terms of the contract, all repairs and restorations which are made to the artwork within the lifetime of the artist shall have the mutual agreement of the County and the artist, and to the extent practical, the artist shall be given the opportunity to accomplish such repairs at a reasonable fee.

10.2.2 County Departments.

a) All routine maintenance and repairs of artworks (i.e., cleaning) shall be the responsibility of the County Department housing the artwork, in consultation with the Cultural Affairs Division. Each County Department that houses the artworks shall notify the Cultural Affairs Division whenever it believes an artwork requires attention.

b) For all non-routine maintenance, County Departments shall not effect any cleaning, maintenance or repairs to artworks without the prior written authorization of the Cultural Affairs Division.

- c) County Departments shall not move any artwork from the site for which it was selected and installed, nor remove any artwork from display, without the prior written authorization of the Cultural Affairs Division.

10.2.3 Cultural Affairs Division.

- a) The Cultural Affairs Division shall be responsible for overseeing all maintenance, cleaning and curatorial services for the County Art Collection.
- b) The Cultural Affairs Division shall provide for a survey, at least every five years, of the County Art Collection, including the present location and condition of each artwork and recommendations regarding needed maintenance and/or repairs. This survey shall be presented to the Board of County Commissioners for review and comment.
- c) Within procedures recommended by the Public Art and Design Committee, this regular inspection may be accomplished by the Cultural Affairs Division staff, trained volunteers or by an outside firm or individual contracted to accomplish these services.
- d) The Public Art and Design Committee shall evaluate the Collection survey and report it to the Cultural Affairs Council.
- e) On the basis of the Collection survey, the Public Art and Design Committee shall, for those artworks needing attention, recommend: 1) that no action be taken; 2) that staff negotiate maintenance and repairs with the County Department housing the artwork; 3) that repairs be accomplished, in whole or in part, by a professional conservator; or 4) that the work be considered for deaccessioning.
- f) Each County Department housing artwork shall, in consultation with the Cultural Affairs Division, provide funds for routine maintenance of the artworks under their control, as part of the annual budget process.
- g) It shall be each County Department/Division/Office's responsibility to assign a staff member to handle routine maintenance. This shall include, where appropriate, ensuring specifications for contracted specialized services (i.e., cleaning). This staff shall consult with the Cultural Affairs Division prior to any handling or maintenance to ascertain what procedures are required.

Photo Memo

April 26, 1996

Monumental Spring Cleaning

- What:** Annual spring conservation maintenance of 24 outdoor sculptures
- Where:** Various points along the Benjamin Franklin Parkway, Fairmount Park (primarily along Kelly Drive), and in Rittenhouse Square
- Projected Timetable:**
- | | |
|---------------|--|
| May 1-11 | Accessible bronze works (without lift), beginning at the Cowboy and proceeding along Kelly Drive to the Samuel - Memorial. |
| May 13-18 | Works in Logan Square, Rittenhouse Square, and Eakins Oval. |
| May 20-June 1 | Bronzes reached by lift, i.e., upper portions of the Washington Monument; General Ulysses S. Grant; Abraham Lincoln; stone works in various locations; Walt Whitman in South Philadelphia. |
- NOTE:** Timetable is approximate only. Work is conducted weather permitting. Please check with the Art Association office to confirm scheduling.

Background: In 1982 the Fairmount Park Art Association initiated a landmark sculpture conservation program with the generous support of a grant from the Mabel Pew Myrin Trust and with the cooperation of the city's Art Commission and the Fairmount Park Commission. The Pennsylvania Council on the Arts has also supported ongoing maintenance.

Sculptures of artistic and historic significance were identified for initial conservation treatment. The goal of the program is to arrest further deterioration and improve the aesthetic appearance of the sculptures. Annual conservation maintenance is carried out by professionals through the Art Association and includes an inspection of the general condition of the sculpture, removal of surface grime and graffiti, washing, and the renewed application of a special wax coating.

fact sheet and schedule enclosed. For more information and to confirm scheduling, contact: Laura S. Griffith, Assistant Director or Penny Balkin Bach, Executive Director at (215) 546-7550.

Fairmount Park Art Association © 1996

Fact Sheet: Conservation Maintenance Program

About Acid Rain:

Philadelphia's outdoor sculpture suffers from both acid rain and airborne chemical pollutants. Because of prevailing wind patterns, Pennsylvania receives the most acidic precipitation in the nation. Acid rain is created when sulfur dioxide and nitrogen oxide (both primarily from coal-burning electric power plants) mix with moisture in the atmosphere. Airborne pollutants, in the form of minute and microscopic particles, are caused primarily by car emissions. Acid rain corrodes the surface of bronze sculpture, increasing the danger of structural failure and giving the works a streaked and unsightly appearance; particle deposits can cause pits in the bronze; and marble eventually dissolves in an acidic solution.

Project History:

Concerned about the condition of the city's outdoor sculpture and the effects of acid rain, the Fairmount Park Art Association began a pilot sculpture conservation program in 1982 with the generous support of the Mabel Pew Myrin Trust. Twenty-five sculptures of historic and artistic significance were identified (such as the Washington Monument [1897] by Rudolph Siemering, the Cowboy [1908] by Frederic Remington, and Three-Way Piece Number 1: Points [1964] by Henry Moore) to receive initial conservation treatment by a professional conservator. These sculptures are now part of an ongoing maintenance plan that was established to arrest further deterioration and improve their aesthetic appearance.

Project Description:

The Art Association's maintenance procedure has its origins in the Renaissance and involves a general condition inspection of the sculpture, the removal of surface grime and graffiti, washing, and the renewed application of a special wax coating by trained professionals.

The sculptures are cleaned, protected, and stabilized to protect them from further corrosion.

Editor's note: The full document concludes with descriptions of the conservator and Art Association.

Outdoor Sculpture Maintenance Schedule 1996

Week May 1–May 4: Kelly Drive

Frederic Remington, Cowboy (1908)

Augustus Saint-Gaudens, James A. Garfield Monument (1895)

John J. Boyle, Stone Age in America (1887)

Einar Jonsson, Thorfinn Karlsefni (c. 1918)

Editor's note: The full document concludes with a maintenance schedule for the next four weeks.

Fairmount Park Art Association © 1996

Editor's note: The format of these documents has been altered slightly for this publication.

Section I. Repair/Replacement Policy

The current operating policy for public art repair/replacement is that all artwork in the City of Dayton collection is to be considered a part of the public infrastructure and to maintain it within the budget capabilities of the city in partnership with other sources. The PAC is to be responsible for oversight and priority setting. The objective is to conserve from 2–4 pieces per year in preparation for the bicentennial. Educational programs are currently being prepared to build awareness and deter vandalism. A trust fund has been established to receive private donations for conservation and other purposes. Grants will be pursued to supplement the conservation program. An adopt-a-sculpture program and other partnerships are being explored.

It is wise to dedicate a set of new brushes for this purpose, and to label them and store them with the rest of the waxing kit to ensure that brushes are clean and uncontaminated.

... be sure that the detergent washes down the drain and out of the fountain system. If the circulating system is hooked up, you do not want to suds the whole system!

Use clean knit cotton rags for polishing. Using old T-shirts for this process is strongly recommended, as they do not shed much lint. ... Use the rags to buff out the dried wax and to bring the entire surface to a smooth, even shine. If wax is not polished well, it will collect a lot of soil and dirt very quickly.

For an Ordinance Amending the Revised
Municipal Code of the City and County of Denver
by Amending Division 4 of Article IV
of Chapter 20, Regarding Public Art

whereas. . . it is in the best interests of the City to care for and maintain its collection of public art; and

whereas, the City has an extensive collection of public artwork for which there has never been a repair or maintenance program to preserve these works and, as a result, significant pieces of public artwork are now in danger of permanent loss; and

whereas, the repair and maintenance of these public artworks is imperative if the City is to preserve these cultural legacies for future generations to enjoy; and

whereas, City agencies must provide for the care and maintenance of the City's public art projects; and

whereas, the City desires to develop and implement a repair and maintenance program which will mitigate the need for future costly restoration of deteriorated public works of art; and

whereas, the City recognizes that the public artwork in its collection represents a valuable cultural asset which requires an investment of on-going care and maintenance; and

whereas, it is in the best interest of the City and would serve a public purpose to provide for periodic assessment of all works of public art within the collection owned by the City; and

whereas, the City seeks to encourage other individuals and entities (private corporations, foundations, etc.) to accept responsibility or provide support (in-kind or financial) to maintain works of public art in the City's collection.

be it enacted by the council of the city and county of denver:

Section 1. That from and after the date of final publication of this Ordinance . . . the Code be amended to read as follows:

division 4
Public Art Program

Sec. 20-85

Purpose. The purpose of this Division 4 is to establish and implement a Public Art Program for the City. This includes the requirement that all capital improvements as defined in Section 20-86 include funding for a work or works of public art and the repair of such public art. . . .

Sec. 20-86

Definitions.

(a) Works of Public Art . . .

(d) All works of public art produced hereunder shall be of a design, fabrication and material which are appropriate and durable, subject to the approval of the Director, as defined herein, in his or her sole discretion. . . .

Sec. 20-87

Applicability

(a) An amount equal to one percent (1%) of the total budgeted construction cost of the capital improvement project or such multi-phase projects shall be included for the planning, design and construction of public art, and for the repair of such public art. . . .

(c) Maintenance of an artwork, as distinguished from repair or restoration of such artwork, . . . shall be the responsibility of the user agency in coordination with and with the advice of the Mayor's Office of Art, Culture and Film. At the time of acceptance by the City of a work of public art, the Mayor's Office of Art, Culture and Film shall provide the user agency with maintenance instruction and schedule information, including any specific directives from the artist creating the work of public art as well as directives and information from the Mayor's Office of Art, Culture and Film. Such maintenance instruction and schedule information may be updated from year to year by the Mayor's Office of Art, Culture and Film. Upon receipt of such instruction and schedule information the user agency shall seek the necessary appropriation of funds to carry out the prescribed maintenance activities. Direct and indirect costs of such maintenance shall be borne by the user agency from their operating budgets, subject to the appropriations of such funds. Upon request by the said Director in consultation with the heads of the affected department or agencies, the agency head will initiate or continue maintenance to a work of art, the agency head shall comply unless no such funds have been appropriated or the agency head determines that it would not be in the best interests of the City to do so.

- E. Works of Art for Municipal Facilities and Spaces — Purpose, Policies and Procedures . . .
 - 2. City's Responsibilities . . .
 - b. Maintenance of public artworks and art places shall be the responsibility of the City, not the artist, and the City shall commit to keep them in a well-maintained condition.
 - c. Repairs, restoration and/or conservation shall be the responsibility of the City. The City shall make a good and reasonable effort to notify the artist(s) or collaborative team in writing before repairs or any treatment is performed, and to obtain input from them. . . .
 - 3. Artist's responsibilities and warranties . . .
 - f. The art as fabricated and installed will be free of defects in material and craftsmanship, including, but not limited to, any defects constituting "inherent vice" or qualities which cause or accelerate deterioration.
- F. Donations and Loans of Works of Art to the City of Dallas . . .
 - 2. Summary of the procedures for donating or loaning artworks . . .
 - b. The Public Art Committee reviews the proposal according to the following considerations and supporting information:
 - (1) Aesthetic . . .
 - (2) Financial
 - (a) Cost of fabrication and installation.
 - (b) Source of funding.
 - (c) Estimated maintenance costs and funding source.
 - (d) Statement of value of the artwork(s).
 - (e) Revenues generated by any collateral material other than that used for educational purposes.
 - (3) Liability
 - (a) Susceptibility of the artwork(s) to normal wear and to vandalism.
 - (b) Potential dangers to the public.
 - (c) Special insurance requirements.
 - (4) Environmental
 - (a) Appropriateness to the site, both specific and general.
 - (b) Scale of the artwork in relation to the site.
 - (c) Impact on ecology.
 - (5) Timeliness . . .
- G: Maintenance and Conservation of City-Owned Artworks . . .
 - 2. Whenever an artwork is proposed as a donation, the donor must provide for maintenance. If, because of the physical nature of the artwork and/or location, this is estimated to be minimal (suggested maximum \$300 annually), the City may agree (but is not obligated) to assume that cost.
 - 3. With regard to works already in the City's collection, for which no maintenance provisions have been made, it shall be the responsibility of the department occupying and/or responsible for the property on or in which the artwork(s) is/are located to ensure that the artwork(s) is/are properly maintained, and that when

repair or conservation becomes necessary, such treatments are implemented according to the following guidelines:

- a. Office of Cultural Affairs staff recommends conservator or technician, based on type and condition of artwork.
- b. Public Art Committee reviews staff recommendation, makes recommendation to Cultural Affairs Commission.
- c. Cultural Affairs Commission reviews and makes recommendations.
- d. If approved, Office of Cultural Affairs staff initiates appropriate paperwork and coordinates repair and/or conservation treatment.

The Goal

The goal of the Dallas Adopt-A-Monument program is to restore the 104 monuments, including sculptures, murals and a mosaic, owned by the City of Dallas. . . .

The City's Commitment

In response to the public's renewed interest in preserving the city's art treasures, and enthusiasm for the Adopt-A-Monument cause, the City of Dallas in its Cultural Policy has made a commitment to develop a program for the regular, on-going maintenance of its artworks once they are restored.

Additionally, the City has established that future gifts of artworks will only be accepted if long-term maintenance funds are secured at the time of the donation.

All applicants are requested to consider the issues of long term conservation and maintenance of public art. Public art projects are in the public realm and may therefore be exposed to weather and subject to vandalism. Public art projects should be fabricated of highly durable, low-maintenance materials. Semifinalists are encouraged to consult with a professional conservator prior to the submission of a final proposal. The proposals of artists awarded contracts may be reviewed by the City and County of Denver's Interagency Maintenance Task Force to ensure conformity with standards of maintenance and durability.

It is the project owner's responsibility to maintain and repair the art as necessary in accordance with accepted curatorial standards set by the Public Art Commission. Stolen or vandalized art must be replaced or repaired as closely as possible to conform with the original approved art. . . . Installation, future preservation, maintenance and replacement if necessary must be guaranteed for the life of the art project through a document recorded with the County Recorder, in conformance with the requirements of Section 1074.4 of the Escondido Zoning Code.

If at any time the Commission determines that the project has not been maintained in substantial conformance to the manner in which it was originally approved, the Commission requires the current property owner to either:

- 1) Repair or maintain the art; or,
- 2) Pay the art fee required by Section 1074.4 based on the current fee schedule and the square footage of the building, structure or the improvement for which the art was required.

Key Issues

The simplest observation to emerge from the study is that public art collections don't take care of themselves. Not only are they subject to the forces of nature when collection pieces are sited out-of-doors, but to the vagaries of work-related environments when sited indoors. Public art collections are subject further to both the well-intentioned and misguided practices of their custodians — the public. In attempting to arrive at practical solutions to the maintenance demands of a large and broadly dispersed collection, it is essential that the Arts Commission, with the support of the Executive and Council, embrace and take responsibility for the following key issues:

- Stewardship (The Art Commission must maintain a continuous, "hands-on" approach to providing for the care and preservation of its collection. This stewardship responsibility includes the need to look beyond the physical condition of the artwork to its siting and presentation — both initially and after it has been installed.)
- Education and Interpretation (The Arts Commission must develop plans to provide for on-going education about the meaning, interpretation, care and presentation of the collection after it has been installed.)
- Maintenance (The Arts Commission must develop plans to provide for the immediate and on-going (cyclical) care of the collection.)
- Growth The lessons learned from the collection survey must be translated into policies for future development: Are there kinds of art the Arts Commission should or should not commission? What are the criteria for siting and presentation?) . . .

Maintenance Plan

The following maintenance plan has been designed to address the immediate, cyclical and long-term needs of the King County art collection. Like any long-range plan, it is intended to be modified through time. Before a cyclical maintenance program can be initiated, the overall condition of the collection must be improved and stabilized. The "Immediate Needs" listed below reiterate recommendations made elsewhere . . . and summarize the main rehabilitation work needing to be done in the next two years. . . .

Cyclical Plan

Following the rehabilitation of the collection as described above, a cyclical maintenance plan will be put into place in 1991. The plan is both flexible and specifically tailored for the KCAC collection. It can be modified to accommodate each year's budget and readjusted to absorb new strategies for preventative maintenance.

The collection and maintenance records are stored and continually updated on a Macintosh SE using the Claris FileMaker II program. Each object is assigned a maintenance reschedule and a prompt for the type of care needed (inspect, dust, clean, wash, etc.). A report form has been designed to use in calculating each year's budgetary needs. . . .

Collection management is to be directly supervised by Arts Commission staff. Daily work with the collection provides an invaluable flow of information that is useful both for the collection management and for the development of new projects.

The Cyclical Maintenance Plan deals with both the static physical properties of the art and with the environments in which it is placed. It compliments the information gathered from County personnel through the annual property inventory and allows Arts Commission staff to more effectively monitor such threats to the collection as normal wear and tear,

accidental damage, vandalism or theft. The importance of proper initial siting can't be overemphasized: objects must be set off to their best advantage and out of harm's way. Integral works such as walls, murals and plazas must also have their visual integrity preserved. At a minimum, the collection should be sited in uncluttered environments, identified by adequate signage and monitored by knowledgeable staff.

The bulk of each year's routine inspection and maintenance of the collection can be performed by technicians — individuals trained to perform such simple maintenance and inspection work as dusting, vacuuming, cleaning frames, lightly washing outdoor works, etc. A pool of qualified technicians has been identified over the last year and others may be added as maintenance work progresses.

The yearly maintenance plan is designed to work as follows:

- An "Object Report" sheet will be printed for each object to be inspected and will be given to the technician to use as a prompt, guiding him/her to consider each object's condition, signage, siting, presentation, etc. . . .
- Any physical change in the object identified during the technician's inspection will be noted and if appropriate, the artist, a conservator or a fabrication specialist will be contacted for further consultation and/or restoration work. (A file of conservators and fabrication specialist has been assembled and others may be added.)
- The specialized nature of much of the maintenance work combined with the unique talents which many of the artists, conservators and fabricators possess, make sole-provided bidding and contract assignment most appropriate at this time. This is not to suggest that the opinions of more than one individual or the investigation of more than one approach should not be undertaken. Conservation is a rapidly changing field in which new approaches and technologies regularly emerge. It is for this reason that no recommendation has been made within this report to favor one conservation strategy over another. The dialogue about proper care and preservation must remain dynamic, just as the physical environments in which collection objects are placed is not static.

The schedule for the cyclical maintenance of the KCAC art collection is organized by medium and includes a simple maintenance plan (inspect, dust, clean, wash, etc.) and interval between inspections (yearly, even year, odd year). The intervals have been designed to maximize the use of technical staff required to conduct the work. The complete data file for each object includes space to record lengthier comments and a description of work completed. In many instances, similar object types or all objects in a particular location are scheduled to be examined during the period. This plan can and should be adjusted as time progresses.

SELECTING AND CONTRACTING WITH A CONSERVATOR

Informed Decision Making Eases the Process

by Ellen Cochran Hirzy

Finding a qualified conservator for outdoor sculpture is serious

business. Your ultimate responsibility is to preserve a work of art, an irreplaceable treasure that must be approached with the utmost care, skill and sensitivity.

If the conservator is inexperienced, uses inappropriate materials, or cuts corners to reduce costs or save time, the damage can be devastating and often irreparable. When the conservator is highly qualified, sensitive to aesthetic and art historical concerns, and knowledgeable about materials and methods, the results can bring new life to the sculpture.

To the novice project manager, the highly specialized field of conservation can be confusing. But many novices have established successful working relationships with conservators — and, in the process, gained confidence in their ability to understand the complexities of conservation.

The key to making a suitable choice, says Arthur Beale, director of objects conservation and scientific research at the Museum of Fine Arts, Boston, is “informed decision making.” When you understand what your needs are, know what to look for, seek responsible advice and evaluate conservators’ qualifications thoroughly, you are better equipped to make a sound decision.

Organizations go about the process in various ways. The Baltimore Bronze Project, the first such comprehensive program in the United States, convened a panel of experts to evaluate the condition of a group of monuments and recommend a treatment method. The city then contracted with a conservator with extensive experience in that method. Cleveland’s new adopt-a-sculpture program wisely included a conservator on its board to guide the early stages of preparing specifications and identifying possible conservators.

A Decision-making Guide

Whatever strategy you choose, be sure to include the following steps:

1. Clarify your purposes and expectations.

2. Identify several qualified conservators.
3. Screen potential candidates.
4. Ask for written proposals and cost estimates.
5. Evaluate proposals.
6. Negotiate a contract.

1. Clarify your purposes and expectations.

Before you begin, you must be able to communicate what your organization wants to accomplish. There can be a number of reasons for hiring a conservator. You may need one to:

- perform a condition survey and present treatment and maintenance options;
- treat a sculpture or sculptures;
- develop and carry out a maintenance program; and/or
- prepare bid specifications or a request for proposals as a preliminary step to a survey or treatment project.

Setting clear objectives will help you match the right conservator to your project and enable the conservator to provide the information and services you need.

A brief but thorough education in the issues, language and methods of outdoor sculpture conservation is an essential early step. Become familiar with the materials, fabrication methods and deterioration mechanisms of various types of outdoor sculpture as well as the ethical and aesthetic issues involved. When you are equipped with a basic working vocabulary, you will be able to ask prospective conservators thoughtful questions and evaluate their responses. Having an overview of the most commonly used conservation methodologies and materials will also make you an informed client.

2. Identify several qualified conservators.

Conservators have many specializations, from paintings to works of art on paper to photography and more. Those who specialize in outdoor sculpture also have subspecialties (bronze, stone, wood and so forth). Begin by locating several people whose qualifications and experience are comparable and appear to match your needs. Geographic proximity is helpful but not necessary.

A board member who is a conservator will be a valuable resource throughout the process, especially as you define needs and identify possible conservators. Colleagues in other SOS! projects and adopt-a-sculpture programs are also good sources of advice, as are staff members of museums, corporations, or universities with outdoor sculpture collections. Municipal, county and state arts councils and historic preservation commissions as well as nonprofit arts organizations may be able to suggest names.

The Foundation of the American Institute for Conservation of Historic and Artistic Works operates a nationwide referral system through which you can obtain a free, computer-generated list of conservators grouped by location, specialization and type of service. AIC can also provide a list of regional and local organizations of conservators.

3. Screen potential candidates.

Once you have several names, you can begin to narrow the list by finding out more about each individual's (or firm's) qualifications, experience and personal qualities. Through this process you may (1) choose one conservator, discuss the project in detail, ask for a written

proposal that includes bid specifications and negotiate a sole-source contract; (2) provide bid specifications to a number of comparable conservators who submit proposals based on your specifications; or (3) choose several comparable conservators and solicit proposals from them.

The first option is appropriate if your project is very small, if you already have experience in finding and working with conservation professionals, or if the project is so complex that bid specifications could be inconclusive.

The second and third options are preferable if you are just beginning to work with conservators, if the project is large or long term, or if you are required to solicit competitive bids. Remember it is absolutely critical to invite bids from conservators with equivalent or similar qualifications and experience.

Ideally, you should aim for establishing working relationships with one or more conservators whose qualifications meet your needs. You can then work with them regularly. Ongoing relationships with the right conservators offer consistency, reliability and peace of mind.

Contact each conservator on your list of prospects and ask for information about

- the extent and length of their experience and expertise in the documenting and conserving outdoor sculpture;
- the type, scope and location of their practice;
- the type and extent of their training and continuing education and that of associates or employees who would work on your project;
- outdoor sculpture conservation and condition assessment projects completed or under way, including description of treatment methods;
- names of previous clients whose work is comparable to yours; and
- availability to carry out your project.

Other less tangible qualities are important, too. Consulting references is the best way to judge them. Ask previous clients whether the conservator

- is highly sensitive to the art historical importance and aesthetic considerations of outdoor sculpture;
- can make quick, informed decisions in the course of treatment;
- uses professional judgment about materials and techniques;
- has a demonstrated commitment to the highest standards of work through adherence to the Code of Ethics and Guidelines for Practice of the American Institute for Conservation;
- explains his or her work in terms you can understand and enjoys the educational aspects of providing conservation services; and
- provides informative, thorough and readable treatment reports.

The screening process is a critical step. Rebecca Stevens, regional historical architect with the National Park Service, National Capital Region, observes that problems in working relationships often can be traced to the client's failure to check the conservator's qualifications carefully.

4. Ask for written proposals and cost estimates.

Whether you are negotiating a sole-source contract or soliciting several bids, you should describe your project and your expectations in writing. A request for proposals (RFP) should review the overall purpose of the project, including which sculptures are involved. It should state who will supervise the project, the expected timetable and the proposal

deadline. It should also outline the type and extent of insurance the conservator will be expected to carry. The clear objectives you established as you began your search will be helpful at this stage.

If your project is large scale or if you have no experience in selecting conservators, consider contracting with a conservator to prepare the RFP. The time and money you spend in developing complete, accurate specifications will pay off in the form of thorough proposals.

A conservator invests considerable time and resources in putting together an effective proposal. Some qualified professionals will not submit proposals without compensation. Budgeting for fees to several conservators at this stage ensures the proposals will be well thought-out and backed by full examination of the sculpture.

The most important part of the RFP is an outline of the scope of work. Depending on the purpose of the project, the scope of the work can include the following:

1. Assess the structural integrity of the sculpture.
2. Assess the surface conditions.
3. Describe the sculpture's general appearance.
4. Propose a plan for conservation or restoration, with reasons for recommended treatment.
5. Propose a plan to document the process.
6. Propose a maintenance plan.

If conservators must make special arrangements for access to the sculpture for inspection, the RFP should give the necessary details. The RFP may also describe the extent of work, such as conserving only the sculptural element of a fountain, not repairing the pump, filter and pipe systems. The RFP should also specify information to include in the proposal:

- the qualifications of the principal conservator, employees and subcontractors;
- a detailed work plan and schedule;
- résumés and names of references for the principal conservator, employees and subcontractors;
- project fee and budget; and
- a copy of the conservator's liability insurance policy.

Finally, the RFP should list the criteria to be used for evaluating proposals. It should allow conservators four to six weeks for preparing their submissions.

5. Evaluate proposals.

If you have obtained bids, the proposal is the grounds for your decision and ultimately for the contract. In the case of a sole-source contract, the proposal is the basis for agreement between client and conservator on the scope of work, fee, schedule and other conditions.

To evaluate proposals in either case, form a small advisory committee of knowledgeable people who can assess the technical and aesthetic merits of the conservator's methods and materials, the schedule, and the fee. An interview is helpful for judging subjective qualities, but previous clients can also give you a candid assessment.

The following questions should guide your evaluation:

1. Does the conservator demonstrate a clear understanding of the project?
2. Is the work plan realistic, thorough and high quality?

3. Do all personnel involved have the appropriate experience and qualifications?
4. Will the principal conservator be on site during most of the treatment?
5. Do the conservator's availability and proposed schedule meet your needs?
6. Is the cost commensurate with the scope of work and time frame and within your budget?

If your organization is required to obtain competitive bids, remember that the selection should never be made on the basis of price alone. Automatically contracting with the lowest bidder without considering other criteria is one of the most frequent mistakes organizations make when selecting conservators, says the Park Service's Stevens. Make

the case against this practice by stressing that the highly specialized nature of works of art requires equally specialized conservation services. At the very least, when evaluating bids, give the highest priority to subjective criteria such as experience, qualifications and proposed treatment methods.

The AIC publication *Guide to the Maintenance of Outdoor Sculpture* offers helpful advice about contracting for conservation services through a public agency.

If the price tag is daunting, you may have to revise your expectations. Never compromise, however, on the qualifications and experience of the conservator you choose. Instead, plan the project in phases as your budget permits, treating the sculpture in greatest need first. Use treatment proposals submitted by qualified professionals as a fund-raising tool.

6. Negotiate a contract.

A written contract with a conservator should include the following points:

- a detailed statement of the scope of work;
- requirements for the treatment report, including photographic documentation and specification of materials used;
- a project schedule;
- the fee, payment schedule and terms of payment;
- the name of the person the conservator reports to;
- insurance requirements (including worker's compensation and public liability); and
- conditions and procedures for revising the scope of work if necessary, terminating the contract and settling disputes.

Your work on behalf of the outdoor sculpture in your community is multifaceted: building public awareness, raising money and creating public-private partnerships. All these efforts support your ultimate goal of preserving and restoring a highly visible public legacy. Choosing a conservator is one of the most critical decisions you will make. When you establish a productive working relationship with a professional who understands the job to be done and is expertly qualified to carry it out, your efforts will be well rewarded.

Resources

City of Philadelphia Art Commission. Request for Proposal for Conservation Services of Outdoor Sculpture, 1996. Sample request inviting conservators to submit a proposal to do conservation work. Contact National Institute for the Conservation of Cultural Property for a free copy.

Conservation Services Referral System. Responds to an inquiry by providing a computer-generated list of conservators grouped by location, specialization, and type of service. Sponsored by the Foundation of

the American Institute for Conservation. For information, call (202) 452-9545.

Cruikshank, Jeffrey L., and Pam Korza. *Going Public: A field guide to developments in art in public places*. Amherst, Mass.: Arts Extension Service, University of Massachusetts, 1988. *Going Public* is a primary resource for anyone involved in the field or who aspires to develop public art programs or projects. Contact AES, Division of Continuing Education, University of Massachusetts, Amherst, Mass. 01003. \$19.95

"Guidelines for Selecting a Conservator" (brochure). Advice on how to select a qualified conservation professional. Order from AIC, 1717 K St., NW, Suite 301, Washington, D.C. 20006; (202) 452-9545, fax (202) 452-9328. Free.

Naudé, Virginia N., and Glenn Wharton. *Guide to the Maintenance of Outdoor Sculpture*. Washington, D.C.: American Institute for Conservation, 1993. Includes chapter on contracting for maintenance. Order from AIC (address above). (A copy is included with the SOS! Maintenance Information Kit.)

MAINTENANCE OF OUTDOOR SCULPTURE

An Annotated Bibliography

by Shelley Sturman, Julie Unruh and Helen Spande

Note: the full bibliography includes over 400 entries, with sections

on acid rain, metal, corrosion, coatings, stone and wood. Contact SOS! to purchase a copy. The general section follows. You may access the bibliography through the SOS! home page, <http://www.nic.org/sos/sos.html>.

1. Armstrong, Bob. "Rise or Fall of Public Art." *Public Art: Who Cares?*, ed. Donna Midwinter, Marilyn Karet and Bridget Pirrie, 25-28. Art Gallery of New South Wales, 1993.

This paper discusses the types of monitoring and inspections to consider in maintenance programs for public art. — NGA.

2. Ashton, John. "Conservation Needs of a Bronze Memorial Sculpture Simpson and His Donkey." *Public Art: Who Cares?*, ed. Donna Midwinter, Marilyn Karet and Bridget Pirrie, 48–52. Art Gallery of New South Wales, 1993.

Details production of a sculpture for a public site from inception to artist selection, including wording for a contract that calls for participation and/or approval of the artist in the maintenance of the work. Brief description of specific conservation techniques. — NGA.

3. Asmus, John F. "More Light for Art Conservation." *Circuits and Devices Magazine* 2, no. 2 (1986): 6–15.

After a brief introduction to the problems of cleaning art works, the variable effects of a pulsed laser beam are described with formulas. Treatment of outdoor marble sculpture in Venice is discussed and test cleanings on tarnished silver threads, stained paper, encrusted stain glass, etc., are mentioned. The major problem in the practical implementation of laser conservation has been producing a uniform result. Overlapping of laser impact spots, recondensation of accretions and slow progress are cited as problems. Both laser and xenon flashlamp systems can be used for divestment. Several hundred square feet of murals in Sacramento have been divested of overpaint and 7000 square feet of antique iron in Dallas have been divested of rust using laser and flashlamp radiation. Carbon dioxide lasers, relatively high in efficiency and low in cost, appear to be useful only for metal cleaning. Surface divestment with light may be a more universally successful conservation alternative when more versatile laser types become commercially available. — AATA.

4. Australian Institute for the Conservation of Cultural Material Incorporated (AICCM Inc.). "Conservation on the Move — Caring for Outdoor Sculptures and Monuments."

This is an important brochure for individuals, collectors, dealers and institutions without in-house conservation staff. The brochure succinctly states how different environmental factors affect sculptures and offers advice on what steps should be taken in order to maintain sculpture outdoors.

5. Bach, Penny Balkin. "Choreography and Caution: The Organization of a Conservation Program." *Sculptural Monuments in an Outdoor Environment*, ed. Virginia Naudé, 51–57. Philadelphia: Pennsylvania Academy of Fine Arts, 1985.

The historical background of the Fairmount Park Commission indicates that in its early years statuary was erected without considering future maintenance. The issues of care, maintenance, artistic intent and environment are discussed as general principles. Specific policies regarding maintenance implemented by the author on behalf of the Fairmount Park Art Association are described; legal protection for the owner of the work and for the conservator are covered. — AATA.

6. Baer, Norbert. "Conservation Notes: Maintenance of Outdoor Bronze Sculpture." *The International Journal of Museum Management and Curatorship* 7, no. 1 (1988): 71–75.

A review was made of conservation treatments used by 30 conservation departments and institutions based on the appendix from *Sculptural Monuments in an Outdoor Environment*. The most commonly reported treatment was the application of a protective coating (wax or Incralac); second was cleaning, frequently followed by

corrosion-product removal, benzotriazole treatment or patination. Results from a telephone survey on maintenance schedules are also presented. — ICCROM.

7. Bath, Mike. "NPS/NIC Seminar Provides Hands-on Instruction for Sculpture Professionals." *SOS! Update* 3, no. 1 (Winter 1991–92): 2.

Restoration painter Bath participated in a two-part course on the preservation of outdoor monuments presented in Sept. 1991 by the NPS in conjunction with NIC. — SOS!

8. Beale, Arthur. "Conservation of Outdoor Sculpture, An Overview. Keynote Address." *Dialogue/89 — The Conservation of Bronze Sculpture in the Outdoor Environment: A Dialogue Among Conservators, Curators, Environmental Scientists, and Corrosion Engineers* (11–13 July 1989, Johns Hopkins University, Baltimore), ed. Terry Drayman-Weisser, 3–12. Houston: NACE, 1992.

Through association with state, national and international organizations, the author observes that trends in art conservation are mirroring global concerns for the preservation of the planet and the dwindling species that inhabit it. These realizations include a better understanding of the magnitude of the collections conservation task, an awareness of the limit of resources needed to accomplish that task and, as a result of the first two realizations, a trend towards the establishment of priorities. Much sculpture found in the present outdoor environment is in priority one condition: it is in peril of loss if not treated immediately. — Author & NGA.

9. ———. "The Varying Role of the Conservator in the Care of Outdoor Monuments: Ethical Dilemmas." *Sculptural Monuments in an Outdoor Environment*, ed. Virginia Naudé, 39–50. Philadelphia: Pennsylvania Academy of Fine Arts, 1985.

Contains a review of conservation ethics with regard to the code of ethics and standards of practice adopted by AIC. This includes demonstrating reversibility. Presentation focuses on whether the rules governing two-dimensional artworks are applicable to outdoor sculpture. The dilemma for the conservator is finding appropriate and ethical treatments that address the problem of corrosion and application of protective coatings, while remaining sensitive to the aesthetic needs of each individual sculpture. — ICCROM & AATA.

10. ———. "What Is Outdoor Sculpture?" *SOS! Update* (Fall 1990): 1.

From a technical viewpoint and for the purposes of SOS!, outdoor sculpture can be defined as three-dimensional work that is created with materials such as stone, wood, metal, ceramic or synthetic materials. — SOS!

11. Biddle, Sherron. "PaSOS! Enlists Ace Corps of Civil War Buffs for Gettysburg Campaign." *SOS! Update* 7, no. 1 (Dec. 1996): 7.

PaSOS! needed to recruit a large corps of volunteers to survey the Gettysburg National Military Park, which encompasses 1,420 monuments, historical markers and brigade markers in its 30 square miles. They turned to the Friends of the National Parks at Gettysburg, whose response was immediate and overwhelming. — NIC.

12. Bogle, Michael. "Public Art or Monument to Anarchy." *Public Art: Who Cares?*, ed. Donna Midwinter, Marilyn Karet and Bridget Pirrie, 67–69. Art Gallery of New South Wales, 1993.

Comments about some of the problems that have beset public art programs, including funding, conservation, re-siting of site-specific works, artists' rights and ethical issues. Introduces concepts that have far-reaching consequences and cannot be overlooked. — NGA.

13. Borsella, S. "Il Restauro Del Complesso Storico, Architettonico e Monumentale Del Prato della Valle Di Padova." *Il Prato Della Valle e Le Opere in Pietra Calcareo Collocate All'Aperto* (1990): 21–52.

The architectural complex called Prato della Valle presents an elliptic shape with 78 statues, vases, obelisks and benches. The complex was built in the late 18th century and later transformed. Its state of preservation has worsened in the last decades of this century. Conservation work was planned on the basis of the study of ancient maintenance practices and the results of experimental tests — scientific analyses, conservation methods, work duration, technical evaluation and final maintenance. — CIN.

14. *Bronze and Masonry in the Park Environment* (20–21 Oct. 1983, New York), Preprints. New York: Center for Building Conservation, 1983.

Contains seven preprints of the meeting, "Bronze and Masonry in the Park Environment" (New York, 1983), sponsored by the Center for Building Conservation. Topics include conservation treatment of outdoor bronze monuments, conservation and cleaning of stone and masonry monuments and graffiti removal. Papers abstracted separately in this bibliography. — CIN.

15. Christiansen, Peter. "The Perils of Public Art." *Public Art: Who Cares?*, ed. Donna Midwinter, Marilyn Karet and Bridget Pirrie, 40–44. Art Gallery of New South Wales, 1993.

Strong warning regarding a variety of potential problems city planners, artists and people involved in acquiring a public art face. These warnings are based on an unfortunate experience in Melbourne. — NGA.

16. Cohen, Jean Lawlor. "An Inside Look at Outdoor Conservation." *Sculpture* (Nov./Dec. 1988): 10–15.

The author describes the difficulties inherent in preserving works of art outdoors due to the severe problems of acid rain, chemical corrosion, unpredictable materials and vandalism. She advises that the solutions are too technical for anyone except a trained professional conservator. The article then examines ways for the nonconservator to select a conservator for a project. — NGA.

17. Commonwealth of Pa., Department of General Services, Bureau of Engineering and Architecture. "Request for Proposal for Conservation and Maintenance Cleaning of the Outdoor Bronze Sculpture of the Pa. State Capitol Building." 1988.

This describes the tasks needed to conserve, preserve and restore the outdoor bronze sculptures at the Pa. State Capitol Building. Part 1 (General Information) describes, in

separate subsections, the purposes, objectives, goals, methods, personnel, qualifications, contract, insurance and payment. Part 2 (Selection and Award) describes the proposal, criteria for selection and award. Part 3 is the Scope of Work. Three entrance doors, two light standards and five statues are included in the Scope of Work. The general requirements, quality controls, additional considerations and documentation of the work are listed. Appendix A is a blank Form of Agreement that will be signed by the conservator and the Commonwealth of Pa. Exhibit 2 is a blank proposal form. A Department of General Services Questionnaire and Financial Statement is also included. — CIN.

18. Cristin-Poucher, Steve. "For Its New Contemporary Sculpture Garden, LACMA's Conservators Faced Intriguing Challenges Mounting and Protecting Outdoor Art." Newsletter (Western Association for Art Conservation) 13, no. 2 (May 1991): 12.
Conservation problems posed by the outdoor installation of several large contemporary sculptures at LACMA were handled in a variety of ways. Specific approaches included refabricating parts, using special paints and using cathodic protection to control the corrosion of a steel artwork. — NGA.
19. Cruikshank, Jeffrey L., and Pam Korza. *Going Public: A field guide to developments in art and public places*. Amherst, Mass.: Arts Extension Service of the University of Massachusetts in cooperation with the Visual Arts Program of the NEA, 1988.
Workbook with case studies and annotated sample documents about the administration and preservation of public art, including outdoor sculpture. Includes chapters about collections management, documentation, conservation and funding models. — NGA.
20. Gardner, Don. "Course Offers Basics of Conservation Through Lecture, Hands-on Format." SOS! Update (Sept. 1992): 7.
Savannah, Ga., learned how to take responsible action for the conservation of outdoor sculpture from the course "The Preservation of Outdoor Monuments" (July 1992, Chicago). — SOS!
21. Gazzard, Marea. "Why the Artist Needs the Conservator." *Sculpture, Monuments and Outdoor Cultural Materials Special Interest Group of the AICCM* (2–3 Mar. 1993, New South Wales). 1994.
This article, presented by an artist rather than a conservator, illustrates artists' desires to understand how to avoid inherent structural problems and their dismay when artists' intentions are not considered during conservation. Cooperative roles of conservators and artists in the formulation of contracts for public buildings is discussed. — NGA.
22. Giusti, Annamaria. "Sculpture e Sosia: Resoconto Della Tavola Rotonda." *OPD Restauro: Rivista Dell'Opificio Delle Pietre Dure e Laboratorie Di Restauro Di Firenze* 3 (1991): 160–66.
Summary transcription of a discussion by Giorgio Bonsanti, Francesco Nicosia, Mario Manieri Elia, Mina Gregori and others at the conference sponsored by the Opificio delle Pietre Dure at Palazzo Vecchio (Florence, Dec. 6, 1990) on the substitution of copies or casts for outdoor sculptures, mainly in Florence and Rome. Issues examined involved ethical and practical aspects of conservation policy and responsibility for the cultural heritage. — CIN.

23. Haggard, Carolann. "As I See It . . ." SOS! Update 3, no. 1 (Winter 1991-92): 4.
As pilot project coordinators, Jim Schippers' and Haggard's experience with the SOS! training materials and methodology help improve these components for coordinators who join SOS! in 1992 and 1993. — SOS!
24. Haraburda, Donica N. "Via Phone, Fax, the Net — and Even in Person — Researchers Draw on Inventory's 54,000 Entries." SOS! Update 7, no. 1 (Winter 1996): 2.
Since the IAS opened to the public in 1992, database users have made more than 2,000 requests by telephone, by mail and in person. With the advent of remote searching, IAS staff notes an increase in requests for on-line help. As of 1995, IAS lists more than 54,000 indoor and outdoor sculptures, including 4,000 of the approximately 21,000 SOS! reports submitted to date. — SOS!
25. Hirzy, Ellen. "Adopt-a-Sculpture: Innovative Private-Public Partnerships Support Conservation. LodeSTAR 5, no. 1 (Feb. 1994): 1.
Adopt-a-Sculpture programs, which often have formal or informal administrative links to city agencies, match private donors with public sculptures. Tips are given on how cities can develop such a program. — SOS!
26. ———. "Energy, Spirit and Commitment: Volunteers Make a Difference." LodeSTAR 6, no. 2 (Summer 1995): 1. Volunteers of all ages and for many reasons have participated in and benefited from SOS! — SOS!
27. ———. "Public Awareness: Building a Constituency for Care." LodeSTAR 6, no. 1 (Winter 1995): 1.
Public interest and enthusiasm are critical to the ongoing success of SOS! Some efforts to date have included workshops and symposia, exhibitions, tours, publications, media coverage, holiday events, community fairs and festivals, college courses, public service announcements and officially designated SOS! days, weeks or months. — SOS!
28. ———. "Public Funds: Tapping State, Local Resources for Conservation of Endangered Sculptures." LodeSTAR 7, no. 1 (Winter 1996): 1-4.
Public agency partnerships, bond issues, percent-for-art programs, the federal highway bill and private-public joint efforts are possible sources for raising or acquiring money for the conservation of outdoor sculpture. — SOS!
29. ———. "Selecting and Contracting with a Conservator: Informed Decision Making Eases the Process." LodeSTAR 5, no. 2 (Summer 1994): 1.
Finding a qualified conservator is important. A decision is best made after taking the following steps: clarify your purposes and expectations; identify several qualified conservators; screen potential candidates; ask for written proposals and cost estimates; evaluate proposals; and negotiate a contract. — SOS!
30. Hochfield, Sylvia. "Mortal Monuments." ARTnews 90, no. 6 (Summer 1991): 114-29.
An extended article in an issue devoted to the environment and ecology discusses the saving of major world monuments. Problems of the Parthenon, the Sphinx, Mayan temples, the Temple of Luxor, Stonehenge, Venice, the Leaning Tower of Pisa, Angkor,

ancient Tiwanaku sculptures in Bolivia and St. Ann's Church in Brooklyn are surveyed.
— AATA & NGA.

31. Hughes, Janet. "Collection Management of National Memorials and Artworks in Canberra, Australia." *Metal 95: An International Conference on Metals Conservation*, ICOM CC Metals Working Group (25–28 Sept. 1995, Semur en Auxois, France). Paris: ICOM.

The National Capital Planning Authority is responsible for 96 memorials and artworks in Canberra, including plaques, fountains, flagpoles, graves, war relics, decorative coats of arms on buildings as well as traditional bronze and stone statues. Major current conservation projects are outlined. Strategies for managing the works include improved documentation, condition reporting, financial planning and commissioning new works with design and conservation in mind. — Author.

32. Kendellen, Peggy. "In Portland, Oreg., Arts Council's Partnerships With Bureaus, Schools Pay Dividends for City." *SOS! Update* 7, no. 1 (Winter 1996): 5.

In Portland, conservators train city workers and university students through workshops and apprenticeships. Public education is accomplished through television interviews and city celebrations. — SOS!

33. Khoury, Franko. "Pictures That Speak Louder Than Words." *SOS! Update* 5, no. 2 (Summer 1994): 8.

Two photos powerfully illustrate the case that can be made by composite before-and-after photos of professionally treated sculpture.
— SOS! & NGA.

34. Kippes, Wolfgang. "Vorbeugen Statt Restaurieren: — Vom Vermeintlichen Widerspruch Zwischen Okonomie und Denkmalpflege." *Restauratorenblätter* 15 (1994): 63–70.

The Imperial Castle of Schonbrunn owned by the Republic of Austria has been managed by a private company since 1992. A new marketing strategy is in place that stresses the high historical and aesthetic values of the castle and its park and optimizes the presentation to visitors. Additional improvements to cover preventive care consist of climate control, ventilation, building maintenance and cleaning, winter shelter for outdoor sculptures and regulating visitor attendance. — CIN.

35. Lemaire, Jacques. "La Prévision Du Comportement à Long Terme De Matériaux Polymères Synthétiques D'Après Des Expériences De Vieillissement Artificiel." *Symposium '91: Saving the Twentieth Century; the Degradation and Conservation of Modern Materials*, 123–34. 1993.

This article describes the photo-aging of synthetic polymers commonly used in modern sculptures found in outdoor settings. Cross-linked unsaturated polyesters and various polyacrylates and polymethacrylates presented as examples of unstabilized matrices whose properties can be modified during the polymerisation, on drying from solution or emulsion and by introduction of additives. Photo-oxidation and thermal oxidation of dienic elastomers and oxidation of polyacetals described. Lifetimes of polymers can be predicted from the measured lifetimes in artificial conditions, taking acceleration factors into account. — Author.

36. Marshak, Boris. "Panjikent: A Pre-Islamic Town in Central Asia." Adobe 90 Preprints, 6th International Conference on the Conservation of Earthen Architecture (14–19 Oct. 1990, Las Cruces, N. Mex.), ed. Kirsten Grimstad, 230–32. Marina del Ray, Calif.: GCI, 1990.

Ancient Panjikent (5th–8th centuries), situated some 55 km east of Samarkand, has been under excavation for more than 40 years. An excavated area of six hectares has yielded a town with hundreds of two-storied houses, a ruler's palace, two temples, streets and bazaars encircled by city walls. The mudbrick and adobe buildings (pakhsa) of Panjikent, which originally reached a height of 10 to 12m (preserved up to about 7m) were decorated with murals and sculptures that have now gained worldwide recognition. Enormous problems of conservation and exhibition exist at Panjikent. These involve the creation of an open-air museum, like that at Pompeii, where visitors may be introduced to the town as a whole. This fascinating work and the resolution of these problems would greatly benefit from international cooperation. — CIN.

37. Megerian, Maureen. "Balancing Intent: Outdoor Sculpture Conservation at Storm King Art Center." AIC: Abstracts of Papers Presented at the 22nd Annual Meeting, Nashville, Tenn., June 6–11, 1994, 19–20. Washington, D.C.: AIC, 1994.

The Storm King Art Center maintains over 120 outdoor works, many by living artists. In caring for its collections, the art center has attempted to find answers to: How does the museum both honor an artist's intent and provide the best and most cost-effective care for a piece? To what extent does the museum base its decisions about acquiring and borrowing works of art upon issues of long-term survival? What is the relationship between the museum's conservator and an artist? Honoring the artist's intent is discussed in conjunction with two examples of painted steel sculpture, *The Arch* (1975) by Alexander Calder and *Mother Piece* (1970) by Mark di Suvero. Durability is discussed through examples of von Rydingvard's cedar sculptures. — NGA.

38. Merk-Gould, Linda. "Viewpoint." SOS! Update 2, no. 2 (Summer 1991): 3.

The accuracy of the information incorporated into the IAS database depends in large part on the structure of the "SOS! Survey Questionnaire." Local SOS! project coordinators use the SOS! Surveyor's Handbook, the "SOS! Survey Questionnaire" and a 30-minute training video. — SOS!

39. Midwinter, Donna. "Network or Web? Are Conservators Credible?" *Public Art: Who Cares?*, ed. Donna Midwinter, Marilyn Karet and Bridget Pirrie, 61–63. Art Gallery of New South Wales, 1993.

Overview of ideas that led to creation of the seminar, "Public Art: Who Cares?" Midwinter cautions that the conservator's aim to inhibit damage, especially on outdoor artworks, is a study in compromise between stabilizing materials and maintaining aesthetics. Article concludes that networking is essential for effective management and maintenance of public art. — NGA.

40. Midwinter, Donna, Marilyn Karet and Bridget Pirrie, ed. *Public Art: Who Cares?* Art Gallery of New South Wales, 1993.

Proceedings of the Mar 2–3, 1993, seminar presented by the Sculpture, Monuments, & Outdoor Cultural Materials special interest group of the Australian Institute for Conservation of Cultural Material (AICCM). Contains short papers by conservators,

curators, artists and arts ministers on various aspects of public art, including maintenance of outdoor sculpture. Relevant papers abstracted in this bibliography. — NGA.

41. Montagna, Dennis R. "NPS Cares for Gettysburg's Monuments." CRM: Cultural Resources Management 18, no. 1 (1995): 41–44.

Gettysburg National Military Park, Pa., an NPS property, contains over 400 monuments, largely of bronze and stone, commemorating aspects of the battle. In 1989 a team from the NPS regional office made a systematic condition assessment of all the monuments as a basis for a program of responsible treatment with long-term care. (Previous maintenance had not been systematic). Under the plan, trained park staff would clean major statues with powdered walnut shell abrasive applied at low pressure followed by a wax coating applied to the heated bronze. Other bronze elements would be washed with soap and water and then waxed. Stone would be cleaned by detergent scrubbing and pressure washing. To date, over half the monuments have been treated with retreatment scheduled to start by 1996. — CIN & NGA.

42. National Park Service. CRM: Cultural Resources Management — Public Monuments and Outdoor Sculpture 18, no. 1, ed. Dennis Montagna, Susan Nichols and Rebecca Shiffer. 1995.

This issue is devoted to the history of public sculpture, the inventory projects for outdoor sculpture and maintenance programs and treatments of outdoor sculpture.

43. Naudé, Virginia, and Glenn Wharton. Guide to the Maintenance of Outdoor Sculpture. Washington, D.C.: AIC, 1993.

A guide for developing maintenance programs for outdoor sculpture. Provides information on general maintenance practices and materials, contracting with conservators, creating and managing a maintenance program, writing a long-range maintenance plan, surveying the collection and more. Covers the care of metals, stone, concrete, ceramics, wood, plastics and fountains. — AATA.

44. New York Conference on Conservation of Stone and Wooden Objects (7–13 June 1970, New York), Preprints of the Contributions. London: IIC, 1970.

Contains 11 papers on the conservation of wooden artifacts including waterlogged, insect-infested, swamp-degraded, burnt and otherwise damaged and deteriorating artifacts. Included are case histories of architectural elements, both indoor and outdoor sculpture and ethnographic objects. — NGA.

45. Nichols, Susan. "Save Outdoor Sculpture! Program Update." AIC: Abstracts of Papers Presented at the 22nd Annual Meeting, Nashville, Tenn., June 6–11, 1994, 61–62. Washington, D.C.: AIC, 1994.

A status report on SOS! projects across the country are discussed and new adopt-a-sculpture programs, scheduled workshops and funding sources are reported. Several presentations at professional organizations are planned. Updates to the IAS database discussed. — NGA.

46. ———. "Saving Outdoor Sculpture: A Nationwide Survey Is Underway." CRM 16, no. 5 (1993): 6–8.

SOS! has worked to inform owners and administrators about proper care and maintenance of outdoor sculpture in public places. Threatened by vandalism, neglect and pollution, these sculptures are still emerging as a sort of national collection that reflects the history and art of the United States.

47. Oropesa Hernandez, Tomas, et al. "Mantenimiento y Conservacion De Esculturas Contemporaneas De Las Exposicion Internacional De Exculturas En La Calle." VIII Congr s De Conservacio De B ns Culturals (20–23 Sept. 1990, Valencia, Spain), ed. Pilar Roig Picazo, 268–81. Generalidad Valencia, 1990.

Maintenance and conservation of contemporary sculpture from the first open-air international sculpture exhibition. — CIN.

48. Panhorst, Michael W. "Annotated Bibliography of Guidebooks and Outdoor Sculpture Survey Publications." NAPAP State of Science and Technology, vol. 3. Appendix 21H of "Risk from Acidic Deposition."

Identifies 54 books on outdoor sculpture in 34 states and cities. Also includes entries for 23 thematic surveys on war monuments, architectural sculpture and other types of sculpture. — Author.

49. ———. "Sculpture Surveys: A Summary of Projects Completed, in Progress, and Planned." *Dialogue*/89 — The Conservation of Bronze Sculpture in the Outdoor Environment: A Dialogue Among Conservators, Curators, Environmental Scientists, and Corrosion Engineers (11–13 July 1989, Johns Hopkins University, Baltimore), ed. Terry Drayman-Weisser, 309–38. Houston: NACE, 1992.

This paper provides an overview of sculpture surveys. It discusses a number of projects that are completed, underway or planned for the near future in the United States. It attempts to summarize the similarities among these diverse projects while being constructively critical of their goals and methods. — Author.

50. Pockman, Ted. "Save Outdoor Sculpture!" *Blueprints* 12, no. 1 (1994 Winter, CAL): 13–14.

51. Pullen, Derek, and Sandra Deighton. "Barbara Hepworth — Conserving a Lifetime's Work." *From Marble to Chocolate: The Conservation of Modern Sculpture* (Tate Gallery Conference, 18–20 Sept. 1995), ed. Jackie Heuman, 136–43. London: Archetype Publications, 1995.

This paper reviews the experience of conserving a large number of sculptures by one artist with examples of different materials and techniques. Hepworth's studio is described and her working technique is explored, including the use of a variety of materials — wood, stone, metals, string. Conservation case studies of two small indoor sculptures of wood and stone are presented. The final section discusses Hepworth's outdoor bronze casts and the conservation of *Four-square* (Walk Through). — NGA.

52. Rajer, Anton, Harry Alden and John Hackney. "Conserving 20th-Century Eccentric Sculpture in the Rural Art Parks of Wisconsin, USA." *AIC Abstracts of the 23rd Annual Meeting*, St. Paul, Minn., June 4–11, 1995, 75. Washington, D.C.: AIC, 1995.

This abstract summarizes the phenomenon of the informal outdoor sculpture collections, known as "Art Parks," that have formed around artists' homes and conservation efforts to maintain them. — NGA.

53. Reger, Lawrence L. "A National Initiative to Save Outdoor Sculpture!" *Dialogue*/89 — The Conservation of Bronze Sculpture in the Outdoor Environment: A Dialogue Among Conservators, Curators, Environmental Scientists, and Corrosion Engineers (11–13 July 1989, Johns Hopkins University, Baltimore), ed. Terry Drayman-Weisser, 339–52. Houston: NACE, 1992.

To date, the care and conservation of outdoor sculpture has been undertaken in a random fashion by the organizations that own them, generally government agencies and corporations. A major national initiative, SOS! will locate and report on the condition of publicly accessible outdoor sculpture in the United States. The data will be added to the IAS, a research database at the Smithsonian Institution's NMAA. SOS!, co-sponsored by NIC and NMAA, aims to raise public awareness about America's sculptural heritage and promote responsible ongoing care for the works. — Author.

54. Reynolds, Patrick T. "The Threat to Outdoor Art." *Historic Preservation* 36, no. 3 (1984): 34–39.

The author notes concern about deterioration of bronze sculpture in cities of the United States, cites acid rain as principal cause of the damage and summarizes four methods of conservation treatment used and advocated by different conservators. Announcement of a National Trust for Historic Preservation project for a national survey to determine the most effective methods of treating outdoor sculpture and to identify research needs accompanies the article. This project was, in fact, the infant SOS! program. — AATA.

55. Riccomini, Eugenio. *Subito, Le Sculture All'Aperto*. Bologna: Palazzo d'Accursio, Bologna Centro Storico-Catalogo per la Mostra Bologna Centro Storico, 1970.

Discusses problems of open-air sculpture conservation. Types of damage, projects for rehabilitation: reduce smog, protective covers, models. Includes photos. — CIN.

56. Romich, Hannelore. "New Conservation Methods for Outdoor Bronze Sculpture." *European Cultural Heritage Newsletter on Research* 7 (Dec. 1993): 61–64.

Precursor to the extensive European Commission project on developing and testing a new coating for outdoor bronze sculpture published in 1996.

57. Schindel, Terry. "Using Gortex Fabrics to Protect Outdoor Sculpture." *AIC Abstracts of the 23rd Annual Meeting*, St. Paul, Minn., June 4–11, 1995, 74. Washington, D.C.: AIC, 1995.

An abstract of a talk that investigated the components of an outdoor sculpture and preventative conservation measures. — NGA.

58. Sinclair, K.K. "ISTEA: A New Approach to Transportation Planning Is Inclusive of Outdoor Sculpture." *LodeSTAR* 4, no. 1 (Summer–Fall 1993): 1.

ISTEA, signed into law in December 1991, is the highway, transit, safety, research and environmental bills all rolled into one package. If a sculpture is near a transportation corridor or affected by a corridor in some way it may be eligible to receive funding. — SOS!

59. SOS! "A Video Guide for the SOS! Volunteer."
Video. Running time 30:15 mins. A tour led by outdoor sculpture conservator Henry Lie introduces volunteers to the SOS! Survey Questionnaire. This is intended as a training supplement for SOS! volunteers. — NGA.
60. ———. "Adopt-A-Monument: The Dallas Story."
Video. Running time 24:30 mins. Richard Kneipper, chairman of Dallas Adopt-A-Monument, discusses the program's evolution, fund raising and collaboration with conservators. Between 1988 and 1995 the all-volunteer effort raised more than \$250,000 to treat and maintain 12 artworks. — SOS!
61. ———. "IAS Opens to Public, Scholars for Research." SOS! Update 4, no. 1 (Winter 1992–93): 1.
NMAA announces the opening of IAS, which includes records of more than 49,000 sculptures (chiefly indoor) in public and private collections. Although not about treatment, this inventory containing SOS! data will be extremely important to conservators and curators. SOS! data will be added continually to this listing. — SOS!
62. ———. Index of SOS! Publications.
This is a listing of the articles published in SOS! Update as well as LodeSTAR, videotapes and kits. Some of these are abstracted separately in this bibliography. — NGA.
63. ———. "Information from Museum's Art Inventories Now Accessible Electronically on the Internet." SOS! Update 6, no. 2 (Summer 1995): 2.
More than 50,000 indoor and outdoor works are now available on the IAS database. The database can be checked periodically for new entries. Although not about treatment, this inventory containing SOS! data will be important to conservators and curators. — SOS!
64. ———. "Major Meeting Will Explore Past, Future of SOS!" SOS! Update — Confederate Camps and Chapters (Special Issue): 2.
The SOS! International Symposium "Playing for Keeps: A Game Plan to Save Outdoor Sculpture" (Washington, D.C., 16–19 Nov. 1996) will celebrate SOS! results and consider next steps for action at local and national levels. — SOS!
65. ———. "National SOS! Checks Items Off '95 To Do List." SOS! Update 7, no. 1 (Winter 1996): 1.
Forty-four SOS! projects completed their obligations by the end of 1995. In 1996 SOS! plans to: produce a maintenance kit and a design criteria pamphlet; contact owners, administrators and heads of training programs for conservators and others who work with sculpture; continue a challenge grant program for condition assessments; assess entries to IAS for artistic significance and conservation vulnerability; and enhance the SOS! Home Page. — SOS!
66. ———. "SOS! Aids Projects as They Move to New Phase." SOS! Update 6, no. 2 (Summer 1995): 1.
National SOS! is helping the finished SOS! projects in three ways: by offering a regional workshop series, "Preservation of Outdoor Sculpture and Monuments"; by identifying

maintenance issues and offering solutions; and by sponsoring the international symposium "Playing for Keeps: A Game Plan to Save Outdoor Sculpture!" (Washington, D.C., 16–19 Nov. 1996). — SOS!

67. ———. "Thousands Survey to Save Outdoor Sculpture!" SOS! Update — Public Facilities Managers (Special Issue): 1.

Building managers and park staff have joined to help SOS! in its second phase. The program began by enlisting volunteers and local organizations to inventory outdoor sculpture and now works to show public and private groups how they can help underwrite professional treatment of artworks. — SOS!

68. Storch, Paul S. "Getting the Shaft . . . and the Engine Too: The Approaches to the Conservation of Large Mechanical Composite Objects." Objects Specialty Group Abstracts in AIC Preprints, 16th Annual Meeting, AIC (1–5 June 1988, New Orleans), 263–64. Washington, D.C.: AIC, 1988.

The South Carolina State Museum in Columbia, S.C., has an ambitious exhibits program planned to display, among other objects, mechanical and technical devices that contributed to the growth and development of the state and its industries. These objects include wagons, automobiles, engines and motors, and farm machinery. The materials involved in the construction of these objects range from polychromed wood and different types of metals to early plastics. This paper documents the treatment of several of the more complex and important objects, with emphasis on the techniques adapted for special problems. The overall treatment philosophy of minimal intervention and alteration, along with constant communication with historians and curators is emphasized. — Author.

69. Tarbox, Gurdon L. Jr. "Brookgreen Gardens: Caring for Outdoor Sculpture Through Ongoing Maintenance." SOS! Update 3, no. 2 (Spring 1992): 6.

Since Brookgreen Gardens began in 1931, outdoor sculpture has been its main feature. Robert A. Baillie, a stone carver associated with Brookgreen Gardens from its beginning, instituted a system of care that is still followed. — SOS!

70. Tuttle, Marjorie. "Preserving the Present: Contemporary Public Art Requires Special Maintenance." SOS! Update 4, no. 1 (Winter 1992–93): 4.

With the beginning of the contemporary outdoor art movement in the 1960s, sculptors began to create large, abstract works that moved beyond traditional statuary. Modern works often encompass public spaces and consist of non-traditional materials. Conservators and technicians must learn new techniques to care for modern artworks. — SOS!

71. Visual Dallas: A Visual Art Plan for the City, Dec. 1987.

This is a milestone publication in public art planning which recommends that one sixth of the 1.5% art allocation suggested for all City of Dallas capital improvement projects be used for maintenance and conservation of the city's art collection. It includes copies of the ordinance and various policies formulated to support the goals of the document. — MP

72. Weinberg, Leslie. "Fontvielle, France: Unsafe at Any Speed." ARTnews 92, no. 1 (Jan. 1993): 50.

Travelers complained that two 10-foot-tall male nude sculptures visible from the highway were too distracting, causing them to drive off the road. The sculptures were damaged by vandalism and finally removed as a result of a vote of the town council. — CIN.

73. Wharton, Glenn. "Symposium Reflects Increasing Awareness for Systematic Maintenance of Outdoor Sculpture." SOS! Update 3, no. 3 (Fall 1992): 3.

A June 1992 symposium on outdoor sculpture sponsored by AIC brought together approximately 200 conservators, arts administrators and curators to explore maintenance issues of outdoor sculpture.
— SOS!

74. Wharton, Glenn, and Mary Stofflet. "Art in a Harsh Environment: Challenges in Maintaining Outdoor Sculpture at the San Diego Museum of Art." AIC Abstracts of the 23rd Annual Meeting (4–11 June 1995, St. Paul, Minn.), 10–13. Washington, D.C.: AIC; 1995.

The San Diego Museum of Art recently developed a long-range maintenance plan for its collection of outdoor sculpture through a joint effort of the curator and contracted conservators. The curator researched the history and original intent of the artists and the garden itself. The conservators cleaned and examined each piece. Conservation decisions were made with the original intent of the garden, the artists' intent and public access issues in mind. — NGA.

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| NGA | National Gallery of Art, Washington, D.C. |
| AATA | Art and Archaeology Technical Abstracts |
| ICCROM | International Council for the Conservation and Restoration of Monuments |
| SOS! | Save Outdoor Sculpture! |
| NIC | National Institute for the Conservation of Cultural Property |
| CIN | Conservation Information Network |
| MP | Michael Panhorst |

RELATED AND USEFUL ORGANIZATIONS

American Institute for the Conservation of Historic and Artistic Works
1717 K Street NW, Suite 301

Washington, DC 20006-1501
202-452-9545
Fax: 202-452-9328

Americans for the Arts
927 15th Street NW, Twelfth Floor
Washington, DC 20005-2304
202-371-2830
Fax: 202-371-0424

National Assembly of State Arts Agencies
1010 Vermont Avenue NW, Suite 920
Washington, DC 20005-4902
202-347-6352
Fax: 202-737-0526

National Conference of State Historic Preservation Officers
444 North Capitol Street NW, Suite 342
Washington, DC 20001-1512
202-624-5465
Fax: 202-624-5419

~~National Institute for the Conservation of Cultural Property —
Save Outdoor Sculpture! —
3299 K Street NW, Suite 602 —
Washington, DC 20007-4415 —
202-625-1495/800-422-4612 —
Fax: 202-625-1485~~

National Museum of American Art
Inventory of American Sculpture
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MRC-230
Smithsonian Institution
Washington, DC 20560-0001
202-786-2384
Fax: 202-633-9351

National Park Service
Northeast Field Area
200 Chestnut Street, Room 251
US Custom House
Philadelphia, PA 19106-2902
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