

Registrar's Quarterly

Spring 2020



RCWR
REGISTRARS COMMITTEE
WESTERN REGION

The
COVID-19
Edition

Wildfires

and Caring for Collections

Planning and Recovery

—*Rosa Lowinger*

Collections specialists who work in the Western United States have long been used to planning for natural disasters. All of us are vigilant about proper siting and installation to prevent earthquake damage to collections. Because we know that tremors can occur at any time of year (unlike hurricanes that only come from June to November), conservators in the west never leave artworks unattended in our studios without proper bolstering. We regularly update our knowledge on standards for addressing the breakage, denting, and material loss that typically accompanies these disasters.

In recent years, wildfires have become our newest recurring adversary. Since 2015 alone, there have been tens of thousands of wildfires in California, Oregon, and Washington. Originally a late summer and early autumn dry season phenomenon, climate change-driven droughts have now turned wildfires into year-round hazards.

Firestorms are ferocious events of unparalleled destructiveness. They often arrive with a few days' warning; but unlike earthquakes, which offer no warning at all, they are not selective in what they damage. Nearly every art material will be charred or irreparably altered by fire. Wood, canvas, and paper are reduced to ash, and other organic materials—fiberglass, adhesives, and paint coatings—will likely blister and burn. Even inorganics, like stone, metals, and ceramics, will crack, shatter, or melt in proximity to the heat of a fire. Only artworks that are taken out of a wildfire's path, covered adequately with fire protective blankets, or otherwise shielded from flames, can avoid severe damage.

Museum collections located in fire-prone zones require strategic planning to maximize protection. This might involve regular pruning of trees to keep them away from buildings, the installation of built-in fire suppression systems, and triage plans that map out how staff can relocate



▲ Painted metal sculpture badly damaged by direct exposure to flames

vital artworks from the wildfire's path should it become necessary. But what happens when outdoor sculptures are exposed to wildfires? It depends on how close the fire is and what type of collection is in question. If the flames pass across the artworks, paints, coatings, and most organic materials (wood, fiberglass) will be damaged beyond repair. If they have any chance of salvage, these structurally damaged works will require

art handlers and special supports to move them. The good news is that if works are not in direct contact with flames or exposed to excessive heat, they are often only covered with soot, and this type of surface damage is usually fully reversible.



▲ RLA Conservator Christina Varvi vacuuming a marble sculpture exposed to soot in a fire

▼ The artwork after conservation



Soot is the black powdery and sometimes flaky by-product of combustion. Composed largely of carbon mixed with dirt, soil, metals, and other airborne materials, soot blankets any surface that is exposed to air during a fire. Soot is oily and acidic. It can smear and grow harder to remove the longer it sits on a surface, so it's important to clean works quickly, if possible before they're even moved. Soot's components and small particle size—it is less than 2.5 microns in diameter, which is smaller than mold or dust—makes it highly toxic to breathe. Epidemiological studies done among chimney sweeps point to its being a carcinogen. But because soot simply deposits onto surfaces, causing no structural damage, works that are affected are often fully conservable. The key to success is testing, safety, and allowing the process to unfold as directed by professionals.

Painstaking and labor-intensive, the cleaning of soot from artworks requires conservator supervision. Sometimes the conservator can direct a team of technicians or volunteers, providing that they are fully aware of the potential hazards of exposure, and wear protective safety clothing (masks, gloves, and sometimes Tyvek suits.) Central to the process is making sure one is not driving the small soot particles into porous materials like paint, stone, wood and ceramics. This is done by a sequence of dry-cleaning steps that begins with vacuuming with a HEPA filter while hovering above the affected surface, continues with soft brushing into the vacuum, and is then followed by a series of dry tactile methods using



▲ Soot covered porous ceramic sculpture damaged in a house fire

▼ The cleaned ceramic after conservation



rubber soot sponges, polyethylene cosmetic wedges, and sometimes a series of white vulcanized and kneaded erasers. Cleaning requires scrupulous housekeeping of the workspace and tools, and when indoor works of art

are treated, they are moved to a clean room to avoid further contamination. Where appropriate, dry cleaning is followed by damp cleaning with distilled water and alcohol mixes, and sometimes conservation-grade detergents. Any artworks that were coated with waxes or lacquers before the fire will need to have those coatings removed and replaced during the treatment process.

The underlying factor in this meticulous order is that wetness will smear the oily material around and potentially drive it in to surfaces, so as much material as possible should be removed by dry methods first. In other words, one should avoid the instinct to rinse or wash a sculpture with soap and water before dry soot removal is performed. Even if it rains before one has a chance to dry clean artworks, or artworks are sprayed with water or fire suppressants by firefighters, one should not abandon the treatment sequence. For while some surfaces will appear cleared of soot after rain, they may retain minuscule particles within pore structures. In other cases, artworks that will have been rinsed will retain smeared soot in undercuts and areas that are not easily accessible.

As we head into summer and traditional “fire season” we need to take stock of our collections to make sure we have good photographic documentation of artworks and a plan for landscape maintenance. One factor that could impede with 2020 wildfire recovery is the current shortage of masks and protective equipment. Confer with your museum conservation department or preferred practitioner to make sure s/he is prepared to assist you should the need arise. ●

Bio: Rosa is president and chief conservator of RLA Conservation of Art + Architecture, a firm with offices in Los Angeles and Miami. A Fellow of the American Institute for Conservation, the Association for Preservation Technology and the American Academy in Rome, she has been in practice in Southern California since 1988. Her firm regularly provides emergency planning and response services for earthquakes, hurricanes, windstorms, floods, and fires. She can be reached at rlosinger@rosalowing.com.



◀ Testing for soot on a sculpture that appeared clean after rain