

# Conservation Treatments for the Washington Monument Commemorative Stones

## Using Guidelines

**T**he Washington Monument stands 555 feet tall in the center of this nation's capital.\* Visitors take an elevator to the top, view the remarkable landscape, and then return to the elevator for the trip down, unknowingly riding past 193 commemorative stone tablets set into the walls of the interior. The stairs leading past these stones were closed 23 years ago in order to prevent the vandalism that had already damaged many of them. Now, as the exterior is completely enclosed in scaffolding for cleaning, repointing, and masonry repairs, National Park Service conservators are busy inside, carrying out conservation treatments to clean and stabilize the commemorative stones. This article describes these treatments and the guidelines that set the protocol for treatments.

*Washington Monument Commemorative Stones on the 140-foot level. Photo courtesy Naomi Krall, NPS.*



What is so wonderful about the stones is their diversity: each stone is different. For conservators, the diversity is also the challenge. The stones range in size from 2-by-2 feet to 6-by-8 feet. Stone types include granite, marble, limestone, sandstone, soapstone, and jade. Some stones are quite simple while others have high-relief sculptures or in some cases, are fitted with bronze and silver plaques and letters. There is a stone from every state, and also from fraternal and community organizations, cities and towns, foreign countries, and individuals. Most of the stones date from 1849-1855. Sixteen stones also date to the 20th century, with the last one installed in 1989 to replace one that had been stolen from the construction site over a century ago.

The significance of the stones lies in the message that each bears through text, iconography, or specific material. The stone from Maine states "MAINE," the stone from New Bedford (Massachusetts) has a whale carved in relief in the center, and the stone from Arizona is made out of three slabs of petrified wood. Many of the messages have been compromised over the years by dirt, structural and surface deterioration, inappropriate repairs, and vandalism. The current work will restore the message of each stone: all text and pictorial elements should be legible and material should be readily identifiable. In restoring the message, the stones themselves may or may not be restored to their original appearances (for example, cleaning dirty white marble will remove a disfiguring gray color, but may not restore the bright white color of a new block of stone).

Conservation treatments are carried out to preserve cultural property for future generations. All treatments are carried out in accordance with the Code of Ethics and Guidelines for Practice of

*Conservator steam cleaning the "Colorado" stone. Photo courtesy the author.*



the American Institute for Conservation of Historic and Artistic Works. These professional standards ensure that treatments are based on a thorough understanding of the problem(s), they cause no harm to the cultural property, they can be removed at a later time, and are documented with text and photographs.

The conservation treatments that are being carried out on the commemorative stones follow a set of specific guidelines that were formulated based on significance and also on condition, test treatments, treatment limitations, and budget. Guidelines are important for any project, but for this project in particular they are especially necessary. While some stones are more finely sculpted than others, or are in better condition, not one can be considered more or less important than another. All stones are equal and the treatment guidelines help to ensure an equality of treatments. The condition of each stone is evaluated, treatment options are evaluated, and treatments selected that address the condition of the stone in relation to the message being delivered by the stone. Developing the guidelines was a fairly lengthy process and involved discussions with conservators and park management staff.

The condition of the stones at the beginning of the project has resulted from a period of time in which the stones have been completely exposed to the elements and subject to poor environmental conditions. This is evidenced in eroded and flaking surfaces, and also some cracks and fractures. Stones have also been vandalized by graffiti and removal of projecting pieces, and many stones have been scarred with misguided graffiti removal efforts. Previous cleanings have left abraded surfaces. In previous restorations,

many missing elements were replaced with epoxy fills that have now yellowed. Incised letters in some stones were painted for easier reading. All stones are extremely dirty.

As part of the development of the treatment guidelines, test treatments (for example, cleaning methods and materials) were carried out on a number of different stones in order to learn the effectiveness, efficiency, and limitations of various types of treatments. These tests provided a great deal of information on what the range of treatments

would be. Understanding the full scope of the work would not have been possible without first carrying out these tests.

For this project, all stones will be cleaned. If their condition is so fragile that cleaning would cause further deterioration, surfaces will be stabilized prior to cleaning. Cleaning serves two purposes: the first is to remove dirt and grime to restore a clean surface, and the second is to enable the better assessment of condition. Cleaning often reveals problems not visible beforehand. Following cleaning, the condition of each stone is re-evaluated and further treatments are executed if necessary.

The methods and extent of cleaning are guided, in part, by the lack of a water source in the monument. All water is brought up to the work areas on the elevator, and all dirty water is collected and brought down on the elevator; all elevator work must be carried out during hours when the monument is closed to the public. Therefore, cleaning methods use as little water as possible and cleaning is not expected to produce perfectly clean surfaces. For stones that have been marred with graffiti or otherwise stained, more aggressive cleaning treatments are required and great care is taken to ensure well-rinsed surfaces. In almost all cases, non-original paint in letters is being removed. This paint detracts seriously from the aesthetic impact of the stone itself and does not increase legibility to any great extent. Samples of this paint are being saved for future reference.

The epoxy fills from previous restorations are, for the most part, quite skillfully executed but they have now yellowed and no longer match

the stone. Because they are not harmful to the stone, the fills will not be replaced. Instead, their color will be adjusted by inpainting to match the stone. Inpainting will also be used to visually reduce, where possible, graffiti that has been scratched into the stones.

Missing sculptural elements that prevent the legibility of the message will be replaced with fills if there is sufficient documentation to enable the re-creation of the element. Letters that have remains of original finishes (gold leaf or paint) will be inpainted to restore the effect of the original decorative appearance.

Flaking and powdering surfaces will be stabilized to the extent that is possible. Stone flakes in the process of becoming completely detached will be reattached to the parent material. Structurally unstable stone will be stabilized with reinforcing supports. Powdering surfaces will be consolidated, if further examination and tests indicate the viability of this kind of treatment.

Three stones have deteriorated to such an extent to be completely illegible. These are being cleaned and stabilized only. Bronze plaques, bearing the original text, will be fabricated and installed adjacent to the illegible stone.

The documentation of this project provides a record of condition and treatment for each commemorative stone and is necessary for future conservation efforts. Documentation is also necessary for the future study of the stones and will greatly assist historians, art historians, and park interpretation staff. Stone descriptions, conditions, history of conditions, and treatments are recorded in a database specifically developed for this project. All stones were photographed in their "before treatment" state, and when the project is finished, "after treatment" photographs will also be made.

Ideally, there is no need for conservation treatments if all measures are taken to prevent deterioration and vandalism. Good preventative conservation practices are the absolute best form of preservation for all cultural property. Of the numerous environmental conditions that have lead to the deterioration of the commemorative stones in the Washington Monument, many have been alleviated or are in the process of being alleviated, and from now on, with maintenance, the

stones should stay in good condition. Historic reports describe surfaces completely wet and dripping with condensation. This problem was solved last year with the renovation of the heating, ventilating, and air conditioning system. Heavy rainstorms now bring water pouring into the monument through open joints at the top. When the current exterior repointing work is complete, this problem too will be solved. Finally, keeping visitor access controlled with ranger-guided small tours should greatly prohibit future vandalism.

To ensure the continued good condition of the commemorative stones, periodic maintenance is necessary. At the completion of the project, a maintenance plan will be prepared with instructions for the park on caring for the stones. The only treatment necessary for the near future is periodic dusting and the plan will guide park staff in proper dusting techniques. There are some stones whose condition will require monitoring and the plan will give explicit guidance on proper protocol for monitoring. Finally, the maintenance plan will recommend the keeping of an up-to-date list of local conservators to be hired (at a moment's notice) in case of graffiti or other vandalism.

When the current treatments are finished, the stones will be in the best condition since their creation and, with proper maintenance, should remain in this condition for many years. The stones that were set into place a century-and-a-half ago will be ready for viewing, studying, and appreciation for many generations to come.

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\* Robert Mills designed the Washington Monument in 1836, and in 1848, the cornerstone was laid. In 1855, when the monument was about 150 feet high, the Washington National Monument Society ran out of funds and construction ceased; the unfinished monument was left completely open to the elements. In 1878, the US Army Corps of Engineers, under the direction of Lieutenant Colonel Thomas Lincoln Casey, resumed construction and in 1884, the monument had been completed. It was first opened to the public four years later.

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*Judith M. Jacob is senior conservator, National Park Service, Northeast Cultural Resources Center, Building Conservation Branch.*