

Protecting the Messages on el morro

A multi-year project is underway at El Morro National Monument in west central New Mexico, to document and preserve historic writings and drawings on the face of the rock. The work is being done by the Southwest Regional Office of the National Park Service, with assistance from the University of Pennsylvania through a cooperative agreement.

El Morro is a prominent, 200' high sandstone mesa, located between Grants and Gallup. Rain falling on the mesa top is channeled by the surface topography to one edge, where it falls and cascades to the bottom. There through centuries of splash and erosion, the waterfall has created a rock basin, a dependable source of water. In this semi-arid region, where water is scarce and far between, the pool at El Morro has for centuries attracted people, both to live nearby and to rest at during their travels.

As is true elsewhere, those people left records of their passing on the rock: early Indian petroglyphs (incised or pecked into the rock), and inscriptions (names, dates, messages) left by recent and contemporary Europeans and Americans. The face of El Morro, therefore, bears the marks of the Native Americans who originally inhabited the area, the Spaniards who arrived in the 17th century, and subse-

quent American emigrants, soldiers, surveyors, and settlers. All passed El Morro because of its water, and many left their marks on the sandstone.

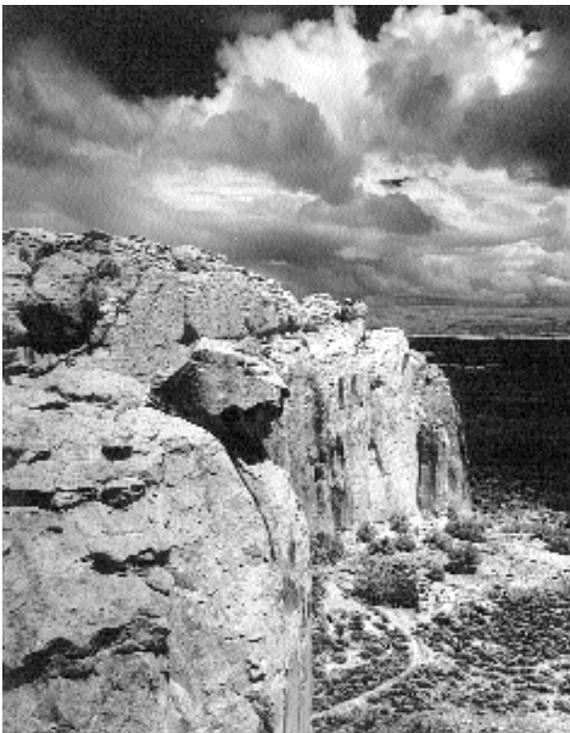
Today, and since 1906, El Morro is a national monument administered by the NPS, established so that this one-of-a-kind historic place will be preserved as a permanent record of the historic people who stopped here. The NPS has as its charge the protection and preservation of the El Morro messages for all time.

Poet Robert Frost noted the frost-heaved stones that annually left New England rock fences in disarray and wrote, "Something there is that doesn't love a wall" In the same sense, and for similar reasons, the NPS has learned through many years of observing the inscriptions that something doesn't love them. That something, of course, is the natural result of rain and frost, wind and heat. A partial photo survey was taken of the writings in 1955 by Channing Howell and Irving McNeil. A comparison between those photos and the rock face today shows that many of the inscriptions are less distinct now than they were 40 years ago, and some are missing completely.

The natural erosion of El Morro is not new. The face of the sandstone rock was being removed grain by grain and falling slab by slab long before the first Native Americans thought to place their ideas on the stone, and the work of every artist and writer who left their mark on this surface since then is slowly being erased. The NPS, then, is charged with preserving something which, by its very nature, is ephemeral.

How to preserve these inscriptions and drawings—as well as determining what to preserve—has always been a conundrum. For example, in the 1920s, an early NPS superintendent realized that people were still writing on the wall, and he judged—just as we do today—that it was graffiti, and he conscientiously removed all post-1906 inscriptions. Because later inscribers at the wall have often written over earlier ones, we don't know what else might have been removed. Another superintendent of those years, assuming that winter was the hardest season on the inscrip-

El Morro National Monument. Photo by Jack E. Boucher, NPS.



tions, painted them over with paraffin to protect them. And finally, one well-meaning administrator tried to prolong the inscriptions' life by deepening them (and sometimes "correcting" the spelling) with a sharp tool.

In recent decades, the stewardship of cultural resources has fortunately been professionalized, and is now based on scientific research. The NPS knows that those well-intentioned attempts to protect the marks on the wall were, at best, futile, and in some cases destructive. But the question still remains of how to preserve something that is inherently impermanent, yet do so in a way that leaves it open and available to the public. The current project by the NPS is trying to answer that practical-philosophical dilemma.

The project began with a study by conservator Antoinette Padgett to identify the forces and conditions that cause wastage of the rock wall and the resultant loss of the historic inscriptions. The causes that she identified are: the unstable nature

of the sandstone surface, which causes spalling and breaking off of pieces of the rock; the removal, grain-by-grain of the sandstone by weather; the effects of lichens and micro-flora growing on the rock, such as by the physical prying of their roots and the rock-dissolving chemicals that they excrete; and the deposition of fine, clayey materials that are washed down the face of the mesa top and which dry and harden on the face,

becoming almost a part of the rock (and covering the underlying inscriptions).

The next phase of the project was to photograph every inscription (precisely replicating, where possible, the photographs from 1955) and to conduct an assessment of their condition.

Where one or more of the above listed conditions was identified on the inscriptions, it is outlined on the photos. Based on this new knowledge of conditions and causes, a priority rating was assigned to each inscription or section of wall: from 0, which means that the section is stable and there is no apparent threat, to 6, which means that the section is very unstable and its inscriptions or rock art are in danger of imminent loss.

The University of Pennsylvania created an epoxy and a grouting adhesive to be injected into the El Morro sandstone. The current phase of the project is a test of this material, in which it was injected through fissures into spaces behind the rock face. The hope is that it will adhere to the two surfaces and bond the rock face (with its inscriptions) to the bedrock. The NPS hopes that this will prevent the surface spalling that seems to be a major cause of loss of the inscriptions. It will take a year or more to know if this treatment is successful. In the meantime, the monument staff is monitoring the inscriptions annually.

For the first time, the NPS has a comprehensive photographic record of the El Morro inscriptions and an assessment of their current conditions. Now, the NPS must meld its new scientific knowledge of the inscriptions and the rock with its philosophy and practice of cultural resources preservation. Certain treatments might work, but are they acceptable? Glass-over the rock wall? Physically remove the inscriptions and place them in museum cases? Spray a protective chemical over them? Let nature take its course?

Cultural resource preservation is a complex issue, and the solutions at El Morro are not self-evident. The inscriptions, petroglyphs, and pictographs on the face of El Morro will ultimately disappear, regardless of what the NPS does. This research provides a lasting record of the inscriptions, and the resource management techniques that result will help forestall the inevitable. But the intention of the NPS is that for whatever decades or centuries these historic writings and drawings on the cliff remain, visitors will be able to see them where they were drawn—open, observable, and unaltered.

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For more information about this project, contact Ms. Kaisa Barthuli, Archeologist, National Park Service, Division of Conservation, P.O. Box 728, Santa Fe, NM 87504-0728; telephone 505-988-6701; FAX 505-988-6876.

Top photo: Pablo Morales inscription in 1955.

Bottom photo: Pablo Morales inscription in 1992. By 1994 this inscription had further deteriorated, and was nearly gone.

