

**National Cemetery Administration &
National Center for Preservation
Technology and Training**

HEADSTONE CLEANING STUDY
Fieldwork Phase - Fall 2005

featuring

Jason Church, Materials Research Associate, NCPTT,
working at Bath National Cemetery, New York

A generic informational sign explains the cleaning project to visitors. Two or three signs are installed at each of the five study cemeteries listed below.



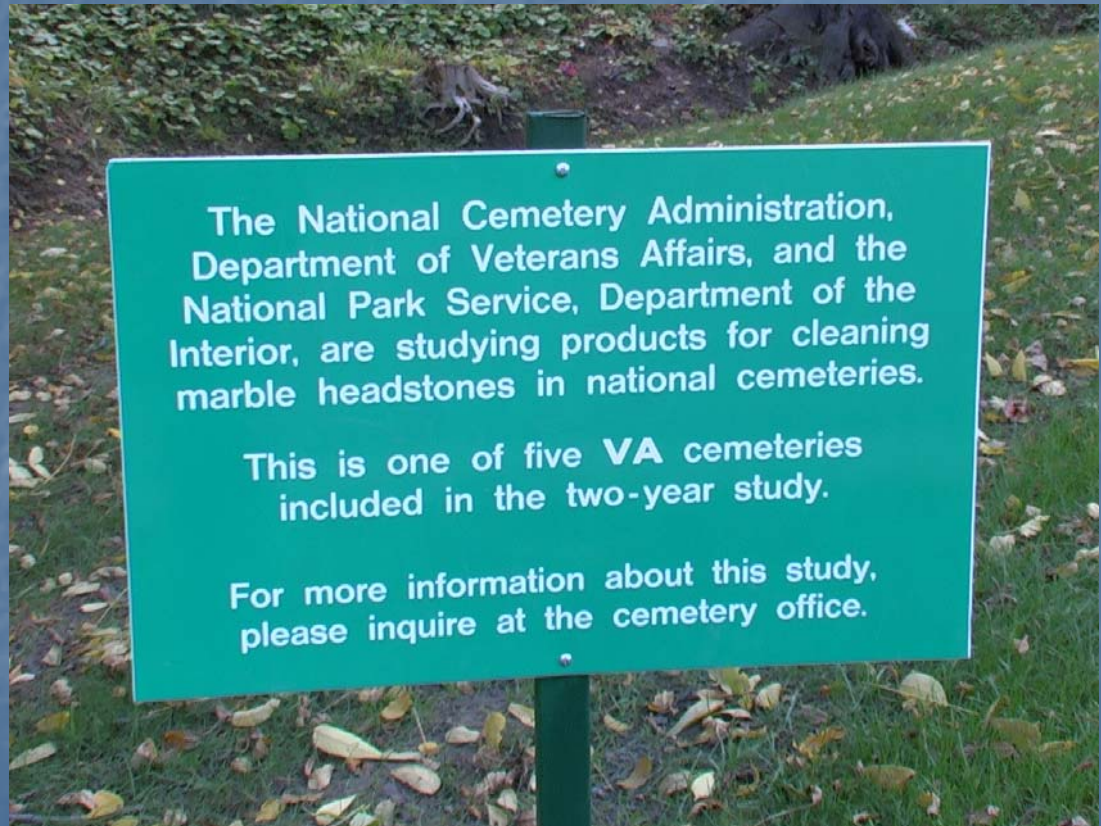
Alexandria, LA

Bath, NY

Jefferson Barracks, MO

San Francisco, CA

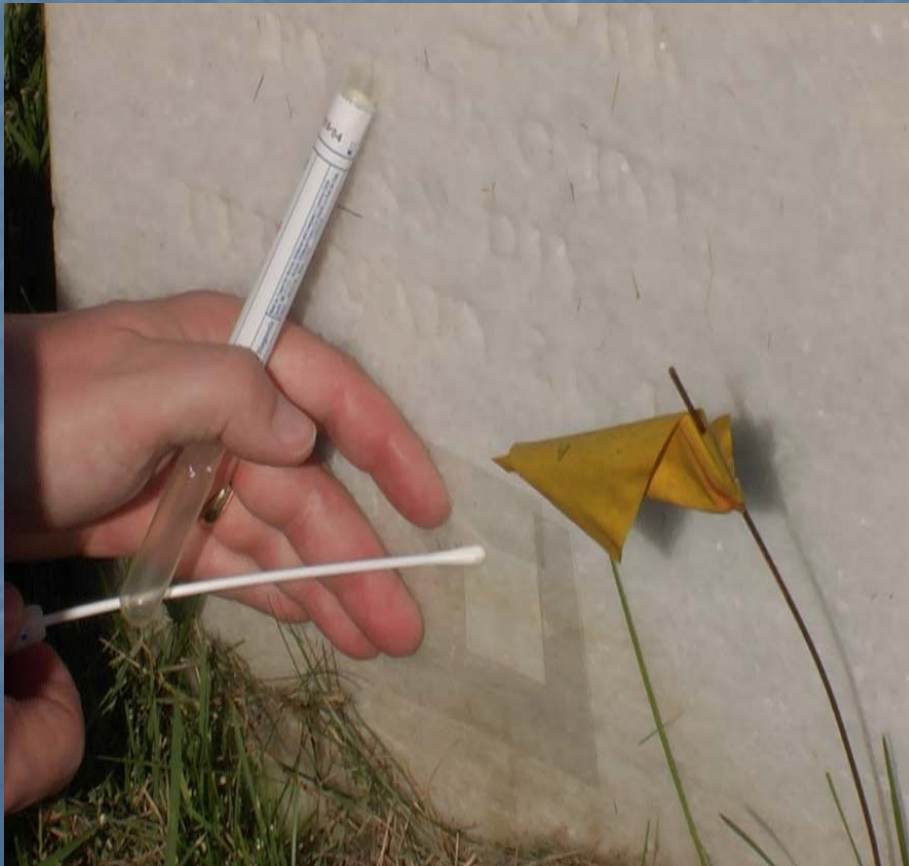
Santa Fe, NM



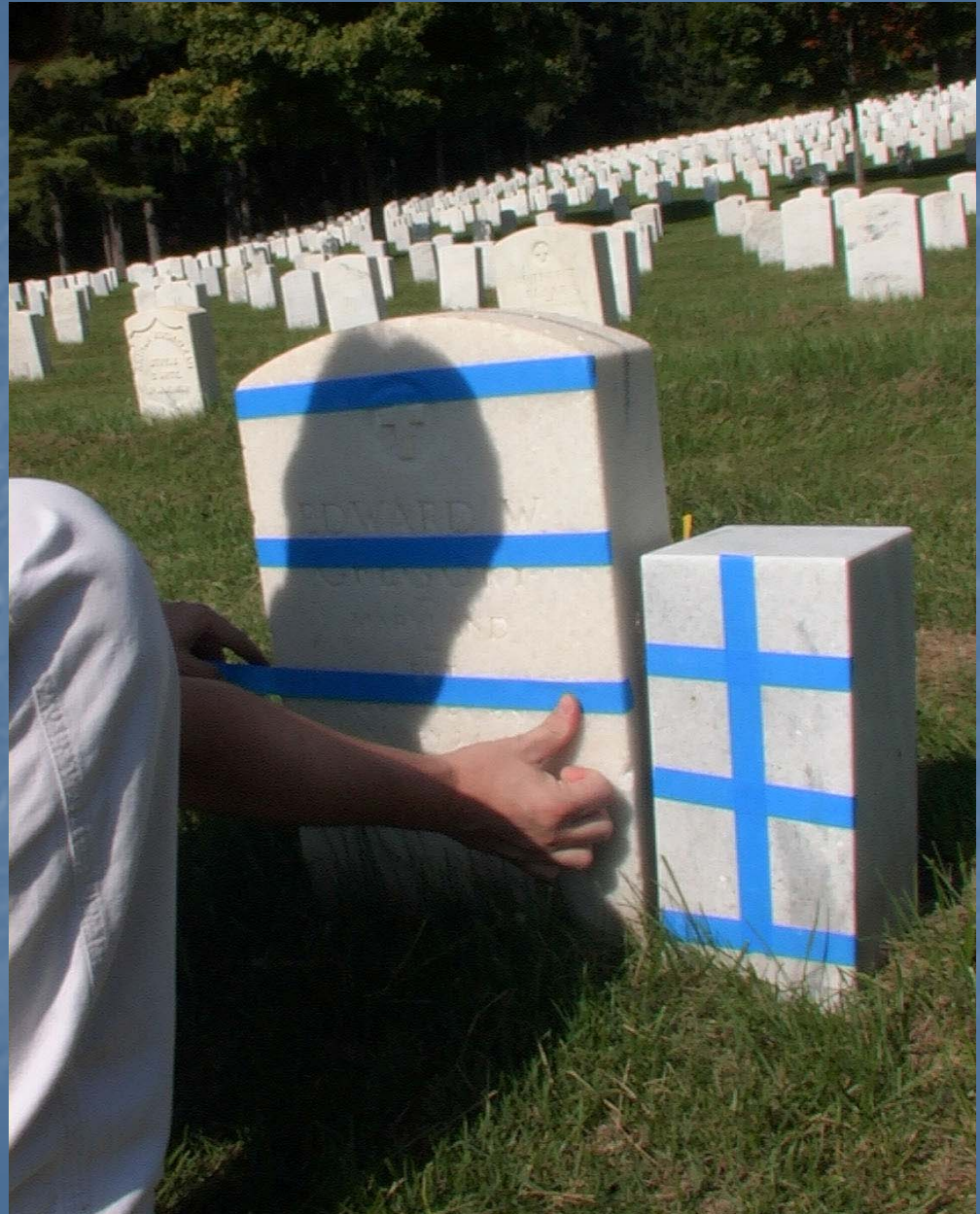
Photography of test headstones prior to any swabbing, taping, and application of cleaners. Both sides of a headstone are recorded.



Swabbing a headstone prior to taping and application of cleaners, to identify existing biological growth. The samples will be sent to scientists at Harvard University for analysis.



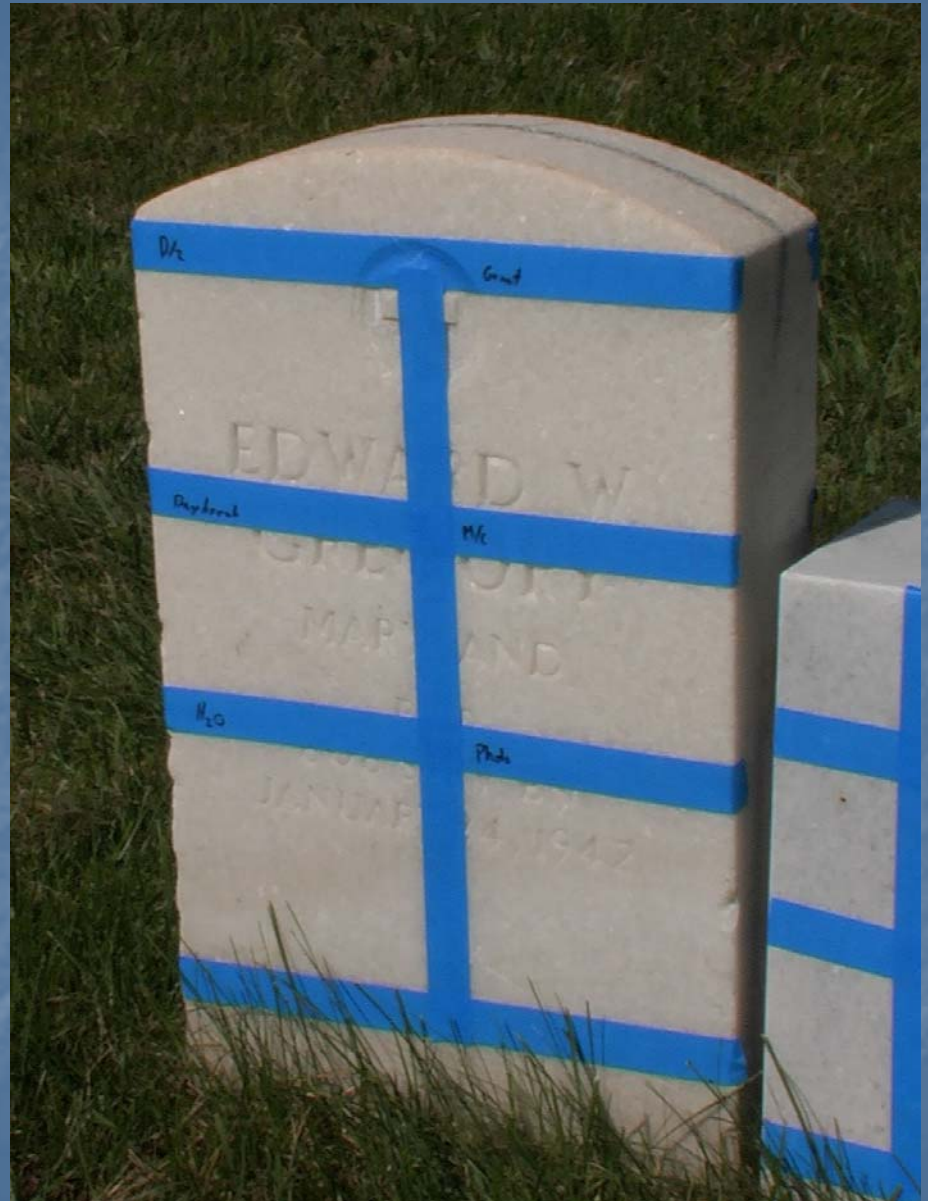
Taping a headstone and a lab sample (*right*) with a low-adhesive tape creates six test plots on the front and back sides of each.



Photographing a headstone after taped grids are established.



The placement of the five cleaners and plain water is indicated on this grid. The same order will be used on all the headstones.



The five cleaners being tested reflect a variety of active ingredients and potential sources of marble damage. The products being tested are.



D2 Architectural

*Antimicrobial
Daybreak*

Kodak Photo-flo

*H2Orange2
Grout Safe*

*World
Environmental
Group's Marble
Cleaners*



Selected headstones are intentionally located in both shaded and sunny locations, to test for the environmental variable of light.



Spraying cleaner
on a headstone.

Latex gloves
protect the user
from the chemicals,
and a plastic shield
keeps run off from
contaminating the
sample below.

Within just a few hours of applying cleaners, the tape is beginning to disengage from the headstone, and it can be disposed of.

