

Cleaning with D/2 Biological Solution

Here's the approach that I demo at VOCA workshops. A low contact technique, this approach can stretch a gallon of D/2 to treat about forty headstones. It creates a slurry (of D/2, water and residual organic material) on the stone for rains to wash off.

Using a no-contact, spray-only technique (no scraping or scrubbing) can also be effective. It may take longer and be better suited in the absence of heavy growth.

Organisms such as moss, algae, lichen, fungus, lithophytes, etc. herald damage. By releasing acids, some of these organisms dissolve the stone they grow on and greatly accelerate deterioration.

1. **Spray the headstone generously with water.** If there's organic growth:

- Be generous with the water and really soak any organic growth.
- Pull/scrape off the majority of growth with a wooden or plastic tool. Be gentle (in case there's damaged stone underneath) and don't go crazy with scraping—just get most of it.
- Spray/rinse with water.

2. **Spray D/2 on the wet stone.** The water will help disperse the D/2 and dilution occurs on the stone.

- Wait 10-15 minutes.

3. **Scrub in a circular motion**, top to bottom, side to side.

Resist the urge to push or bear down on the brush.

- If the stone dried during the wait, mist with water or dip the brush into water to have a wet surface.
- There will be a film/slurry on the stone.

4. **Walk away** (and do not rinse).

- If a lot of water was used to keep things wet while scrubbing, spray the surface with D/2 before walking away.

Walking away is the hardest part but be patient. Rain will wash away the D/2 slurry and the headstone will continue to brighten over time. Full effect may take up to nine months.

Recommended tools and supplies

VOCA recommends only D/2 and water for cleaning. D/2 is expensive but it is the only thoroughly tested and researched stone cleaner trusted by conservators and the National Parks Service to clean and maintain our national monuments in Washington D.C. There is no substitute and it's not available at most retail locations. D/2 is available at Granite City Tool (Barre), WhiteCap (nationwide) and online.

Tools to use:

- hand or pump sprayer, bucket
- wooden tools (paint stick, chopstick, skewer),
- plastic tools (putty knife, plastic spoon/fork),
- soft natural or synthetic brushes (toothbrush, vegetable brush, soft household brush).

Rule of thumb: if it's soft enough to run across skin, it's ok to use in cleaning a headstone.

Never use:

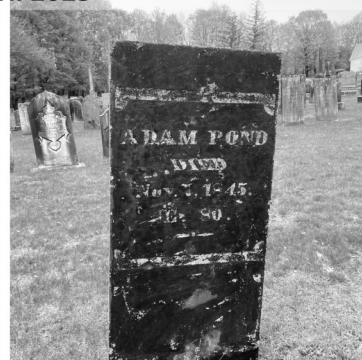
- wire brushes, metal scrapers, etc
- chemical cleaners such as bleach, household cleaners, detergents, ammonia, oxyclean, etc.
- natural cleaners such as vinegar, lemon (any citrus), hydrogen peroxide, etc.
- power washers, sanders, sand blasters, and never lean on or grab onto a headstone.

Bonus: Read the inscription!

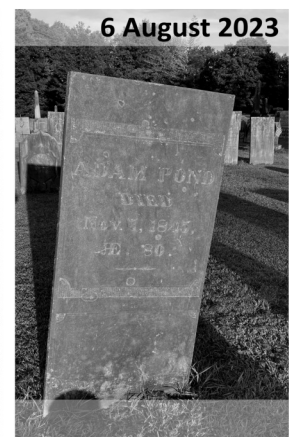
Scrubbing in a circular motion sometimes results in "suds." Use the long side of a paint stick to "squeegee" the surface, leaving suds within the inscribed letters.



29 April 2023



Ascutneyville Cemetery



6 August 2023