

# Cleaning Stone Grave Markers

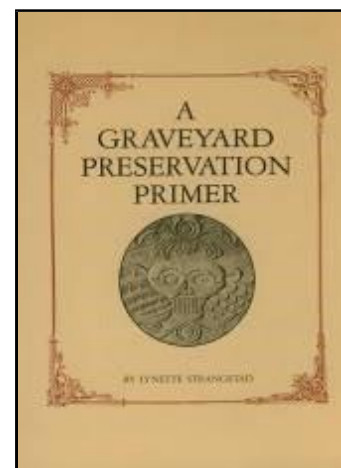
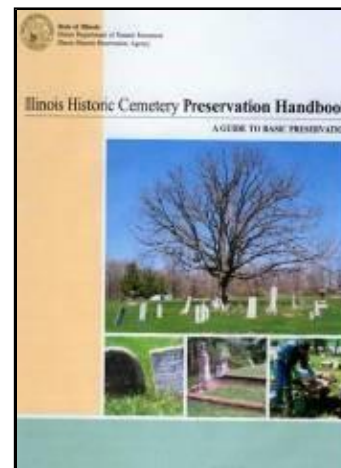
Illinois Department of Natural Resources  
Cemetery Preservation Training

# Cardinal Rules

- Do No Harm
- Don't do anything that cannot be reversed
- When in doubt, contact your instructors

# Activities Before Cleaning

- Read, research, ask questions
- Contact the Illinois Department of Natural Resources (IDNR)
- Get written landowner permission to enter the cemetery & IDNR permit to clean the marker



# Identify Types of Issues

## Natural

- Dirt
- Flora & fauna
- Organic (algae, lichens, moss)
- Inorganic (paint)
- Weathering

## Man-made

- Air pollution (acid rain, carbon deposits)
- Maintenance
- Treatment & Repairs
- Vandalism

# Steps

- Determine the problem
- Consider gentlest solution
- Follow acceptable methods
- Don't expect a "like new" appearance
- Allow time to improve stone's appearance

## Leave these items at home...

- Bleach
- **All** household cleaners
- Abrasive pads
- Wire or stiff-bristle brushes
- Rotary wheels
- Metal scrapers
- Power washers



## DO NOT Use Any of These

- TSP
- Borax
- Calgon
- Formula 409
- Spic and Span
- Fantastic
- Windex
- Woolite
- Liquid detergent
- Hydrochloric Acid
- Muriatic Acid
- Phosphoric Acid
  - Lime Away
  - Naval Jelly
- Oxalic Acid
- Sodium Chloride
- Sodium Sulfate
- Sodium bicarbonate
- Ammonium carbonate

## Remember...

- Stay away from any product whose formula contains the words: acid or sodium.
- Do not rely on product label or advertising. Major brand name products are generally intended for household use.
- Do not rely on products whose instructions say to use it on dry stone.
- Be concerned if the product label contains health warnings.
- Improper cleaning products can cause serious and irreparable damage to stone.



# Essential Toolkit

- Clean water source (2-3 gal. tank sprayer or hose)
- Soft-bristle brush
- Plastic scraper or wooden craft stick
- Plastic bucket
- Clean rags
- Safety glasses
- Gloves



Use white  
or natural  
bristle  
brushes



# Safety First

- Use caution when working around leaning markers
- Some may appear stable but can topple easily





# Check Condition of Stone



# Check Condition of Stone

Safe to clean



Unstable –  
Do not clean



# Photograph Before & After

- Photograph the stone before starting cleaning process
- Take a comparison photo 6+ months later





# Remove Plant Growth

- Ivy, ferns & moss can deteriorate stone
- *Gently* pull plants from surface & out of cracks. Clip as needed but don't yank roots from the stone
- Brush away any remaining soil or debris
- Clean as recommended below



**Use caution when working  
with poison ivy!**

# Basic Washing

- Always pre-soak stone with water before cleaning
- Clean stone using water & soft brush





# Start at Bottom...Work Upward

- Start with the back side
- Test a small area
- Clean from the bottom up



# Elbow Grease

- Use small, circular motion
- Rinse often to keep stone moistened during cleaning
- Craft sticks are helpful when cleaning the inscription
- Use plastic scrapers to remove excess surface dirt & debris



# Rinse, Rinse, Rinse

- Use lots of clean water...rinse often
- Use hose or garden tank sprayer





# Biological Growth



- Algae, lichen, mold, fungi
- Traps moisture
- Acidic “roots” dissolves stone
- *Solution?*



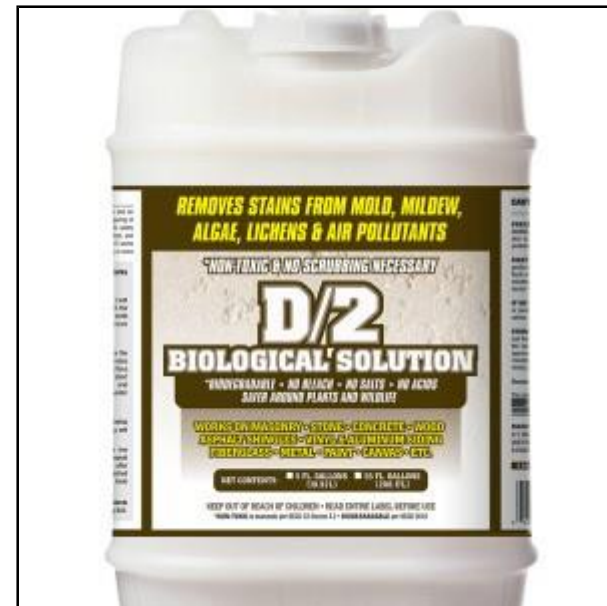
# Removing Biological Growth

- Pre-wet stone with clean water
- Use plastic scraper & soft brush to gently remove lichens or moss
- Rinse & clean with approved biological cleaner



# Approved Biological Cleaner

- D/2 Biological Solution
- Easy to use
- “Immediate Result” method
- Safe for marble markers (pH of 9.5)
- Safe for environment
- Tested & approved by National Park Service



## D/2 – “Immediate Result” Method

- Pre-wet surface (always pre-wet the surface even if product label says to apply to dry stone)
- Apply with brush, pump spray or spray bottle
- Allow to remain on surface for 3-5 minutes.  
Lightly spray with clean water or additional D/2 to maintain moist surface during this time
- Gently scrub surface
- Allow D/2 to remain on surface for additional 5-10 minutes, spraying to maintain moist surface
- Reapply D/2 and gently scrub surface
- Rinse thoroughly with clean water

## D/2 Biological Solution

- D/2 Biological Solution can be applied full strength for heavy biological deposits
- It can also be diluted from 1:1 to 1:4 parts water by volume to remove light biological deposits
- Avoid splashing the liquid in your eyes
- The use of gloves and safety glasses is recommended even though this product has no specific hazards
- In most cases, this product keeps surfaces clean for up to a year



# D/2 Biological Cleaner

## Distributors

Bonstone Materials Corp., WI

<http://www.bonstone.com/products/d/2>

Granite City Tool, St. Cloud, MN

<http://www.granitecitytool.com/>

Granite City Tool, Barre, VT

<http://www.granitecitytoolvt.com>

Lime Works, Telford, PA

<http://www.limeworks.us>

Bicknell Supply, Elberton, GA

<http://www.bicknellsupply.com/>

# Improvements

- Take “before” photograph of your work
- After cleaning, allow Mother Nature to improve your effort
- Sun, wind, and rain will continue to clean the stone
- After 6+ months, take another photograph and compare it with the “before” photos
- Only clean stone every 5-10 years, if needed

# Questions?

- E-mail: dawn.cobb@Illinois.gov
- Phone: 217/785-4992
- <https://www2.illinois.gov/dnrhistoric/Preserve/Cemetery/Pages/default.aspx>
- Photo credits & content: Dawn Cobb (IDNR), Hal Hassen (IDNR) & John Heider