



*The mission of the Association for Gravestone Studies is to foster appreciation of the cultural significance of gravestones and burial grounds through their study and preservation.*

- Welcome
- News & Notes
- Join the AGS
- Preservation
- Store Directory
- Publications
- External Resources
- AGS Conferences
- AGS Awards
- Research Clearinghouse
- Archives
- More Information
- Contact Us
- Home

## Preservation

### *Where can I get the best information about fixing cemeteries?*

A Graveyard Preservation Primer by Lynette Strangstad

This is the very best source in print for finding information on cemetery preservation. You will find here understandable instruction oriented primarily to non-professionals and also useful for professional stone conservators. The subject matter covers the entire spectrum from surveying a cemetery to determine what most needs to be repaired or restored, preparing a plan for a restoration project, documenting data from and about the stones, cleaning, repairing, and resetting stones. See Preservation in the Store Directory to purchase this book, or [click here](#).

[Top of page](#)

### *What happens at an AGS Conference Conservation Workshop?*

This is a full day program including brief lectures on basic conservation procedures, followed by "hands on" application in a local cemetery. Small groups of conferees, each with a staff person to instruct and supervise, are assigned stones needing cleaning and poulticing, resetting, and simple adhesive repairs. Instructive handouts are provided including lists of tools, materials, and sources of products used in conserving stones.

[Top of page](#)

### *I would like to learn about resetting gravestones. Do you have any information on your website?*

Ta Mara Conde, an AGS member and gravestone conservator, has created a presentation that contains information about resetting gravestones. It contains step-by-step instructions, with photos. The PDF file can be downloaded here: [Steps to Reset a Stone \(With Photos\)](#).

[Top of page](#)

### *We have many stones encased in cement. Is it possible to remove the cement without damaging the stone?*

Stones that are "encased" in cement whether in a vertical or horizontal position are best left alone. Attempts to remove encasement are rarely successful and should only be attempted by trained professionals with appropriate equipment.

[Top of page](#)

### *Why can't I use flour to read worn inscriptions on gravestones?*

No matter how carefully the stone is brushed afterward some traces of flour will remain, that, when in contact with water, may become tacky, trapping moisture and accelerating deterioration. Because of

this, AGS does not endorse the application of flour to gravestones to read worn inscriptions. To safely read a worn inscription, AGS recommends the following methods:

- Use a large mirror to direct bright sunlight diagonally across the face of the gravestone to cast shadows in indentations and make inscriptions more visible. In wooded areas, use a flashlight to achieve similar results.
- Take a digital photo, upload onto a computer, edit the picture, and choose invert colors. This will make the image look like an old 35mm negative and bring out the lettering. To keep a copy of the original and edited photograph, select "save as" when saving the edited photograph.
- Treat a wet gravestone with D/2 Biological Solution, scrub into a lather using a plastic bristle brush, and smooth the lather into the inscription to make the letters more readable. Afterward, rinse the stone thoroughly.

[Top of page](#)

---

### ***Why can't I use shaving cream to highlight inscriptions on difficult to read stones?***

Our professional conservators tell us it is definitely not a good idea to use shaving cream on porous gravestones because there are chemicals and greasy emollients in shaving cream that are sticky and very difficult to remove from the stone with a simple washing. Indeed, even with vigorous scrubbing and lots of rinsing, the cream fills in the pores of a porous stone and cannot all be removed. The result of leaving it there is that in time it may discolor or damage the stone.

Instead, use a mirror to shine sunlight across the face of a stone, making the lettering stand out. You should always prefer a non-invasive method to interact with gravestones just as we do with medical tests on our own bodies.

[Top of page](#)

---

### ***Is it possible to remove graffiti left by vandals?***

This is probably best done by professional conservators. The type of paint and the method of application requires skilled assessment to determine which products are appropriate to remove graffiti without harming the stone. Time is of the essence. The longer the graffiti remains on the stone the more difficult it is to remove it successfully. See: [How to remove graffiti from historic stone](#) for more information.

[Top of page](#)

---

### ***The stone has broken at the base. The old base is either broken itself or we can't get the stub out of the recess. How can we make a new base?***

How To Cast a New Base for a Stone

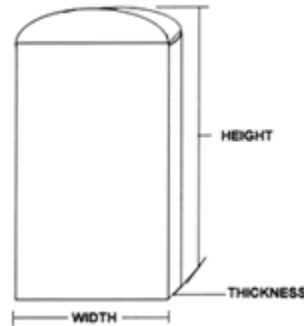
In the early 1930's WPA workers restored many gravestone using the best-known material available, sand cement.

Tablet stones were often placed directly into bottomless forms filled with cement, or holes dug in the earth were filled with cement and the stone thrust directly into the "puddle". Many stones treated with this method have subsequently broken at the point where the stone enters the surface of the cement.

A recommended treatment for this situation is to cast a base of concrete (pre-mixed works well) with a recess for the stone of sufficient length, width, and depth to permit using a high mortar mix to secure the stone in the base.

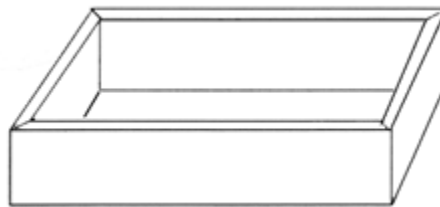
**Step 1.** The first step in this process is measuring the stone to be reset (see fig.1) and then preparing a form of sufficient dimensions based on the measurements. Measure its height, width, and thickness. Particular care must be taken when measuring the width and thickness of that part of the stone that will be inserted into the formed recess in the cast base. Irregularities such as curvature, shoulders, and varying thickness must be taken into consideration. Also, the end to be inserted into the recess in the base must be at right angle (or nearly so) to the vertical edge of the stone. A particularly "ragged" bottom may be "trimmed" using a masonry blade in a circular saw. The safest method is employing a monument dealer to do the "trimming".

(Fig. 1) Stone dimensions



**Step 2.** A "box" form should be constructed that is 7 inches greater than the measured width and 7 inches thicker than the stone measurements. The height of the "box" form should be at least 6 inches plus an additional 1/2 inch for each 8-12 inches of the measured height of the stone. For example, for a 42-48" height the box depth would be 6-1/2".

(Fig. 2) Box for casting a new base



**Step 3.** Construct a block to form a recess in the box. The width and length of the block forming the recess should be at least 1 inch greater on both dimensions than the stone, depth at least 3 inches plus 1/2 inch deeper for each 8-12 inches of measured height of the stone above 36".

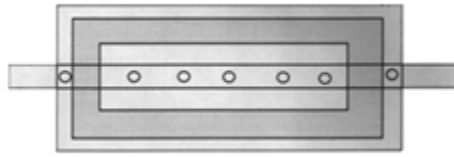
(Fig. 3) Side view of recess block



**Step 4.** Thoroughly saturate the interior surfaces of the box and the recess block with linseed oil or similar material to insure the form will "release" the casting when it is cured. Pour in the cement to the point where the recess block makes an indentation. Secure the recess block to the box form and continue filling the remaining space with concrete tamping with a stick to compact the concrete. As soon as the concrete surface becomes dull (about an hour) and a

trowel mark holds its shape, remove the recess block carefully. Permit the casting to "cure" for a week, wetting it frequently to assist the "curing" process (see Fig. 4)

(Fig. 4) Top view of recess block in box form filled with concrete (the dark-shaded area).



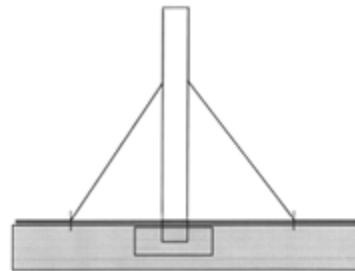
If the block has become too firmly embedded in the concrete it can be extracted later using a masonry bit to drill several holes up from the bottom until the drill reaches the block; then drive the block out with a dowel. These holes will be covered when mortar is introduced to set the stone.

**Step 5.** The cast base should be allowed to "cure" for a week or so. Frequent wetting of the cast will aid in the curing process.

**Step 6.** Set the new base into the ground on a bed of pea gravel and sand for drainage. The top of the base should be an inch or so below grade so that it does not show since it could detract from the appearance of the stone. Check that the cast is level lengthwise and crosswise.

**Step 7.** To set the stone in place, a high lime mortar mix (1part #1 Portland cement, 4 parts hydrated lime, 8 parts fine sand) should be prepared. First lay a 1/2 inch layer of mortar in the bottom of the recess, set the stone in place, fill the perimeter with mortar to the top of the cast base and slightly above shaping a "bead" to assist water run-off (see Fig. 5)

(Fig. 5) Reset stone mortared into the base and braced.



**Step 8.** Backfill and brace the stone ensuring it to be plumb (vertical) and level. Remove brace after a week or so.

[Top of page](#)

---

**More preservation information:**

See "Tools and Materials for Gravestone Cleaning Projects" and "Selected Brand Name Materials for Cleaning Gravestones" in [More Information](#), [FAQs](#).

---

[Welcome](#) | [News & Notes](#) | [Join the AGS](#) | [Preservation](#) | [Store Directory](#) | [Publications](#)  
[External Resources](#) | [AGS Conferences](#) | [AGS Awards](#) | [Research Clearinghouse](#) | [Archives](#)  
[More Information](#) | [Contact Us](#) | [Site Map](#) | [Home](#)

^ [Top of Page](#)



Association for Gravestone Studies  
101 Munson St., Suite 108 · Greenfield, MA 01301

Phone: 413.772.0836  
E-mail: [info@gravestonestes.org](mailto:info@gravestonestes.org)

Copyright © 2005, The Association for Gravestone Studies, All Rights Reserved  
Web Site Design & Web Site Hosting by [Dot.Inc Solutions](#)