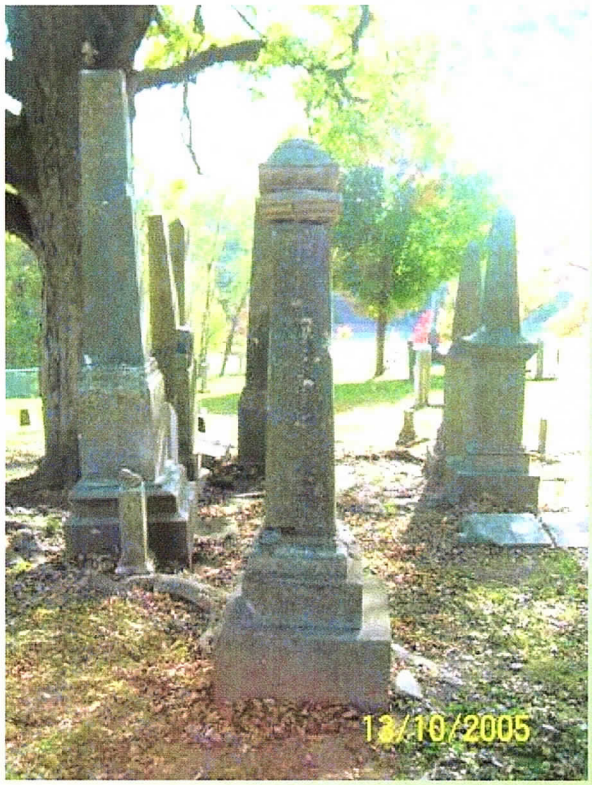
First, "Do No Harm"

A Guide for Protecting, Preserving And Maintaining Our Cemeteries





The Historic Preservation Commission Of the City of Cape Girardeau Cape Girardeau, Missouri

So, you want to restore a cemetery.....?



FIRST....

"Do No Harm"

Cemeteries are among the most valuable of historic resources. They are a reminder of various settlement patterns, such as villages, rural communities, urban centers and ghost towns. Cemeteries can reveal information about historic events, religion, lifestyles and genealogy. Cemeteries and graveyards, often visited as parks and historic sites, are places to honor and commemorate the dead, and to reflect on the past. Established in large part for the benefit of the living, cemeteries perpetuate the memories of the deceased, who bequeathed to their communities the amenities that give a place character and definition.

Until recently, burial sites were not recognized as important historic sites within the cultural landscape. If valued at all, they were seen as a collection of stones whose significance lay in recording genealogical data and denoting the final resting place of prominent individuals.

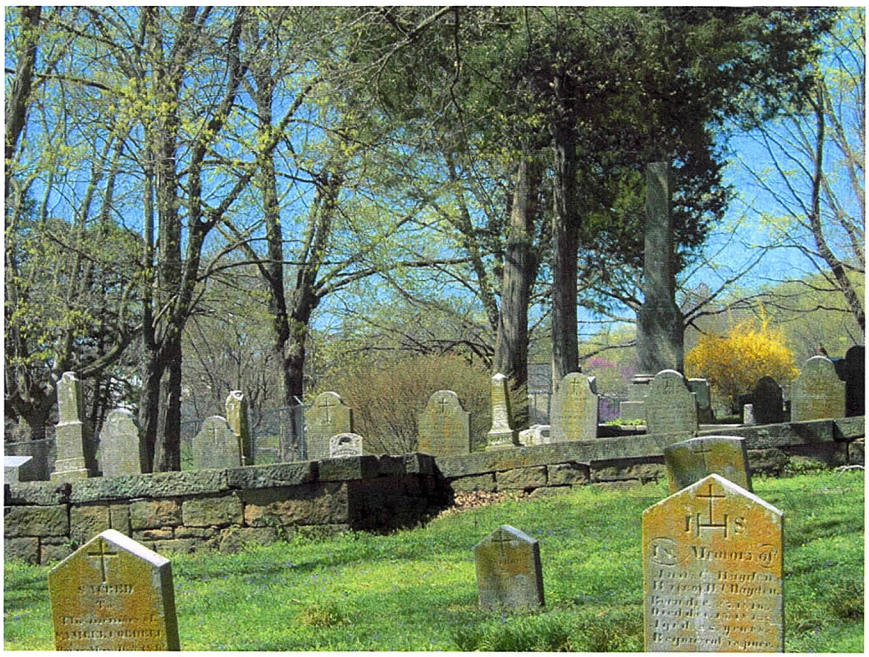
In the last two decades, increased public interest and concern for our threatened burial sites has resulted in the development of this new area of historic preservation. Finding written information and locating professionals knowledgeable about the preservation of historic burial sites can be difficult. In communities that have a strong sense of history, people are more likely to protect and maintain their cemeteries. Unfortunately, historic cemeteries do not necessarily remain permanent reminders of our heritage. They are subject to long term deterioration from natural forces such as weathering and uncontrolled vegetation, and often times needing restoration due to criminal vandalism. Neglect accelerates and compounds the process.

INTRODUCTION

Old cemeteries are irreplaceable historical resources, subject to abandonment, apathy, encroachment, environmental factors, vandalism, and theft (Trippe-Dillon n.d.). Key threats include technological advances; lack of care in maintaining these resources, including use of modern machines and chemicals that often damages markers; pollution, which causes more rapid weathering of stones; theft of markers and decorative features; and lack of respect for the markers, resulting in vandalism.

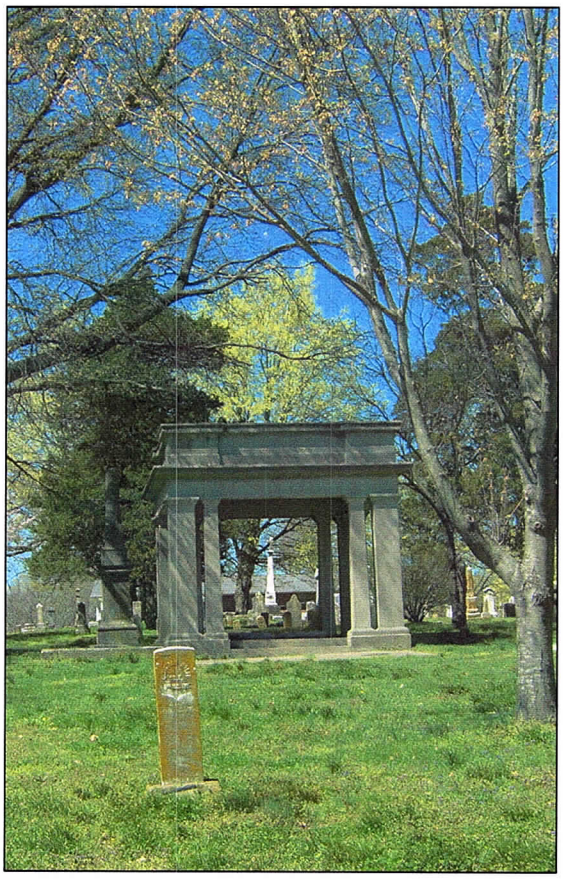
However, these fragile resources can tell us much about the lives of earlier generations; their attitudes about death, family, and religion; and family relationships. Oftentimes, grave markers are the only source of information about many individuals, and loss of these markers represents information that can never be retrieved. If cared for or restored, however, markers may survive for many decades (Trippe-Dillon n.d.).

The first step in gravestone conservation should be preparation of a detailed inventory, including photos and a scale map. (Anson-Cartwright 1998). This inventory should include all markers, their structure and material, and landscape features. This provides a basis for restoration and conservation recommendations. As conservation activities are undertaken, those who do the restoration should record all treatments, conservation and restoration activities for future reference. The least intrusive methods possible should be used to get the desired result, to avoid causing more damage. This manual provides basic practice guidelines for conservation and restoration.



PURPOSE OF MANUAL

The purpose of this manual is to provide information to assist in conserving and repairing markers in old cemeteries, specifically Old Lorimier Cemetery in Cape Girardeau, Missouri, which is on the National Register of Historic Places. It provides basic methods and guidelines for conservation of markers, and points those interested to other sources that may provide more detailed information. It is not intended to be an exhaustive treatment of the topic, nor the final word in gravestone conservation and repair. Those interested in more thorough information on the topic are referred to the sources in the bibliography at the end of this manual.





Old Lorimier Cemetery – Est. 1808
500 N. Fountain Street
Cape Girardeau Missouri

RESTORE, CONSERVE OR PRESERVE?

For purposes of cemetery preservation, the following definitions from the National Trust for Historic Preservation information, regarding processes apply.

Preservation refers to activities that help perpetuate and care for historic burial sites, including planning, maintenance, documentation and education.

Conservation refers to mechanical and chemical processes used to treat damaged markers.

Restoration may occasionally apply to burial grounds, although it implies significant intervention, which should be avoided whenever possible. When a mausoleum, for example, has deteriorated to the point where a partial rebuilding is required, restoration is appropriate. True restoration includes documentation and research to determine the original appearance of the artifact, its structure, and the treatment required.

Stabilization refers to treatments executed to retain the greatest cultural and structural integrity of the artifact and the site overall, with a minimum of intervention into the historic fabric. In some cases it may approach restoration, although it generally does not include replacement of nonstructural detailing.

Most marker repair may be classified as either conservation or stabilization.

Conservation

Historic cemetery preservationists are rare and professionals in related fields may not be appropriate for conservation tasks. Even in straightforward cases or in cases which appear to require relatively minor repairs, it is important that conservators, artisans, or masons experienced in historic preservation undertake the work. Materials, skills, and techniques required for conservation work differ markedly from those required for new construction. Architectural or fine arts conservators, and some restoration artists, stone and brick masons are likely to offer services appropriate to the repair of unsound or broken cemetery markers, ironwork, stone tombs and mausoleums.

When undertaking field work, you can use the following guidelines for conservation:

- Determine the work required and the reasons for it. Taking the time to understand the work involved helps to avoid problems.

- Retain original form and fabric. It is important to preserve the site and make as little change as possible. Altering the grounds or markers will seriously compromise the integrity of the entire historic site.

- Use the appropriate materials and techniques of conservation. Correct techniques must be used in the conservation and stabilization of each element in the cemetery. Appropriate materials and techniques will vary with each element and often with each individual marker, stone, fence or other feature. It is also very important to be aware of what techniques and materials to avoid. Commonly used, incorrect and damaging techniques include setting stones in cement, repairing cracked and broken markers with cement instead of the correct adhesive, using inappropriate consolidants and sealants, using incorrect cleaning techniques, using adhesives and epoxies not meant for a specific stone type, and using more modern mortars that are too hard.

- Document all changes made. Documentation is a part of the historical record extremely important to any responsible preservation program. Document the site prior to beginning the work, indicating the condition in which the site was found. Document while working on the project to note the process while also noting internal or original construction details. And finally document the project following completion, outlying what work took place, what changes were made, and why such changes were required. Photographs throughout the process provide invaluable documentation.

- Maintenance on a day to day, periodic and long term basis is so very important to a long term plan of preservation of a historic cemetery. Grounds keeping personnel can carry out much maintenance on a regular basis, but the responsibility of the historic cemetery's preservation and maintenance is the obligation of concern of those in charge of the site. Cemetery budgets should included annual expenditures for long term maintenance of the grounds and the markers.

TYPES OF STONES/ROCKS USED IN MAKING HEADSTONES

Before any headstone is cleaned or repaired, it is vital to know what type of material it is.

Limestone is a sedimentary rock composed largely of the mineral calcite (calcium carbonate: CaCO3). Limestone often contains variable amounts of silica in the form of chert or flint, as well as varying amounts of clay, silt and sand as disseminations, nodules, or layers within the rock. Limestone varies greatly in texture and porosity and is usually white, gray or buff in color. Limestone, unlike marble, does not take a polish well and therefore has a matte finish. Breaks and cracking in limestone markers often occur along the bedding planes.

To clean: Use water and non-ionic detergent only. Make sure that all soap has been rinsed from the stone. Types of cleaning solutions to use: Phot-flo, Vulpex, D-2, Orvus, mixture of water and amnonia.

Marble- is a metamorphic rock resulting from the metamorphism of limestone, composed mostly of calcite (a crystalline form of (calcium carbonate: CaCO3). It is extensively used for sculpture, as a building material, and in many other applications. The word 'marble' is colloquially used to refer to many other stones that are capable of taking a high polish. The color of marble ranges from brilliant white to black, blue-gray, red, yellow and green, depending upon the mineral composition. Common problems with marble are dissolution by acid raid and sugaring. Sugaring is a gradual disintegration of the surface of the marble, cause a rough granular, crystalline or sometimes powdery appearance.

To clean: Use water and non-ionic detergent only. Make sure that all soap has been rinsed from the stone. Types of cleaning solutions to use: Phot-flo, Vulpex, D-2, Orvus, mixture of water and amnonia.

Sandstone is a medium-grained sedimentary rock made up primarily of quartz grains and cemented by a variety of binding agents (silica, calcite or iron oxide). It is porous, soft and easily worked. Sandstone was used for monuments, but not commonly. Sandstone is typically buff, gray, brown, red, purple or pink in color. Spalling, which is the separation and breaking away of layers or small pieces of stone is exacerbated by the freeze-thaw cycle. If at all possible, a sandstone grave marker should be left alone.

To clean: Use water only and use gently.

Granite is a course-grained igneous rock which is composed chiefly of quartz, feldspar, orthoclase or microcline and mica. Granite may range in color from light pink and gray to red, brown and black, depending upon the mineral content. Granite takes a polishing well and is relatively acid resistant. Granite is one of the most durable stones.

To clean: Use water and non-ionic detergent. See marble.

Concrete is distinguished by its ability to be molded into an infinite variety of shapes, as well as a wide variety of surface textures. Markers were often finished to resemble limestone. Concrete is gray or white unless artificially colored. Good examples of the use of concrete are the "tree stump" markers widely used by the Woodsman of America.



Different materials require different cleaning and restoration strategies. Sedimentary stones, such as sandstone and limestone, may tend to crack along bedding planes. Igneous stones, such as granite, tend to deteriorate at a much slower rate, but still may require repair and protection from other factors. Gravestones in the Cape Girardeau area are comprised of principal materials: Sandstone, marble/limestone, and granite.

Sandstone is rock composed of sand grains cemented with different materials. The binding material determines weathering and durability. These include clay (poor durability, and rapid deterioration potential), carbonates (acid-soluble, relatively durable), iron-rich cement (very subject to rust staining and variably durable), and silicates (hard, dense and durable) (Anson-Cartwright 1998). Sandstone markers in local cemeteries in and near Cape Girardeau include those with most of these binders, although most seem to be of poor durability. Relatively few markers in the area are sandstone, and remaining ones tend to be in poor condition.

Limestone and marble are comprised of calcium carbonate. Particle size and chemical composition are highly varied, but all are subject to erosion in acidic environments. Local marble stones are often high quality limestone, with small particle size and good durability. Color varies, but most stones used for grave markers are white or medium to light gray. This was the predominant material used for local grave markers in the 19th and early 20th century in the Cape Girardeau area.

Granites are igneous rocks that tend to be hard, heavy, and durable, and have a higher degree of acid resistance (Anson-Cartwright 1998). The color is highly variable, depending on mineral composition, and granites may be classified based on the size of their crystals (small, medium-or large). Granite stones are less often a problem with regard to conservation and deterioration, but may need to be restored if stones are pushed over or fall. Nearly all contemporary (late 20th century to date) markers are granite.

Less often, the occasional local stone may be comprised of slate, which is a thin-bedded, metamorphic rock, usually in shades of gray (Anson-Cartwright 1998). Good-quality slate tends to resist acid and the primary conservation problem is splitting along the layers. Various metals such as iron, lead, zinc, and concrete may rarely be found locally.

For detailed information on material identification, consult Anson-Cartwright (1998)



CLEANING BASICS

Cleaning Tools

- Soft Brushes – wooden or clear handle and bristles
- Misting water devices or garden house (do not use sprayer handle unless it is a mist)

Cleaning Agents

- Water
- Antimicrobial cleaning agents – make sure that it is environmentally friendly
- Mild detergents – phosphorous free

What To Do And What Not To Do

DO:

- **Make sure stone is soaked before cleaning**
- **Use only water when cleaning if possible**
- **When cleaning stone be gentle as possible**
- **Remove growth by hand after soaked well**

DO NOT:

- **Sandblast**
- **Use a power washer**
- **Use colored handle or bristle brush (dye can bleed into the stone)**
- **Use bleach or other harsh chemical cleaners**
- **Pull growth off stone while dry**

General cleaning

Tools- soft brushes, misting water devices.
Cleaning Agents- D/2 antimicrobial cleaning agent.

There are many issues in cleaning outdoor stonework. Cleaning art objects to improve appearance and or readability is a concern for conservators in all specialties and the process may take on quite a complexity for outdoor objects and sites. Conservators may also rationalize cleaning outdoor stonework to reduce or eliminate sources of deterioration. For example, limestone and marble interact with acid rain and sulfur dioxide to produce gypsum that secures

black particulates in place. For limestone and marble outdoors, experience says that leaving soiling crusts in place leads to loss of the underlying stone because of the water solubility of gypsum. Removing these crusts significantly reduces the risk of loss. The water solubility of gypsum, which is the main cause of deterioration, also allows for its removal by water alone, usually with misting devices over a period of 24 hours or more.

Both chemical and abrasive methods have considerably advanced in the last 25 years. The term used for abrasive cleaning prior to 1980 was sand blasting. The widespread use and misuse of this technique led to a ban on abrasive cleaning by the Department of the Interior for its historic properties, including historic cemeteries.

Advances in chemical cleaning has decreased the risks associated with more acidic cleaners but hasn't been quite as dramatic as the abrasive methods. Formulations have become more complex and have taken advantage of new mixtures of organic and mineral acids. Cemetery monuments and markers need to be cleaned by hand using soft brushes, and we suggest using D/2 Architectural Antimicrobial and water. D/2 Architectural Antimicrobial removes organic growth from most surfaces. It lasts 5 times longer than bleach, peroxides and power washing. D/2 is safe to use near grass and most landscape plantings. D/2 Architectural Antimicrobial is a safe, easy to use liquid that removes a broad spectrum of biological deposits from hard environmental surfaces. A contact time of only 1 to 2 minutes will loosen most fungal and algae deposits with manual scrubbing and is typically sufficient for antibacterial disinfection. Growth of bacteria, fungi, algae, lichens and mosses contributes significantly to the degradation of many types of construction materials, and can be disfiguring. D/2 can be utilized to control this problem on outdoor sculptures, monuments, decorative fountains, gravestones, and tombs.

Removing metal stains- better not to try and remove metal stains.

DON'TS OF CLEANING

In a nutshell



For more information, see Association for Gravestone Studies (2005), Historic Cemeteries Conservation Trust of New Zealand (n.d.)

Don't use acidic cleaners on limestone or marble

Don't use any abrasive (steel wool, sanders, wire brushes, sand blasting or pressure washing) on a stone

Don't place ANYTHING on a tombstone that will potentially damage the stone. This includes all chemicals that are ionic or non-neutral (including chalk and shaving cream).

Don't clean any stone that is unstable

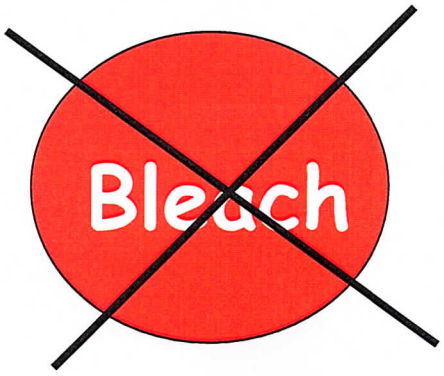
Don't use product that seal or waterproof, including paint. These materials trap moisture, and can hasten deterioration of a marker.

Don't attempt to clean stones without first receiving proper instruction.

Don't substitute household cleaners for recommended cleaning agents.

Don't clean stones often. Even the most carefully cleaned stone loses stone particles with each cleaning.

Don't plan to clean stones more often than once every several years, or longer.



REPAIRING HEADSTONES AND MONUMENTS

Prior to attempting any repair to a headstone, it is *strongly* suggested that the following criteria be observed.

1. The repair should be *less strong* than that of the original. (Additional damage to the stone could result if the repair material is stronger than the original stone)

2. The repair should be reversible. (The repair should be able to be disassembled without damage to the stone. Improved repair methods may become available in the future.)

3. The repair should respect the original material of the marker.

4. The repair should be as historically accurate as possible.

5. The repair should not inhibit the natural permeability and breath-ability of the stone. (Avoid adhesives, coatings, sealants or other repair material that may retain moisture which can result in secondary damage.)

6. Before attempting to repair a headstone in a historic cemetery, inspect the stone carefully to assure that it has not developed previously unforeseen cracks, spalling or other weaknesses.

7. Familiarity with different types of stones, with the characteristics of mortars and epoxies, and with other equipment is required before working on any historic headstone.

It is ***highly*** advised that a professional cemetery conservationist be hired for any thing other than a simple repair to a headstone, including the reversal of any previously well-intentioned, yet incorrect, attempts to repair a stone. Below are some examples of repairs that should be left to the professional.





1. Monument repair- Marble monument set on limestone base





Carefully remove all noticeable caulk and glue from the monument with appropriate tools (chisels).
Glue pieces back that pop off after removal of the caulk and glue, using an epoxy type glue.
Patch with a Marble Repair Mortar that is a mineral based mortar designed for the restoration of marble. It should be completely vapor permeable and contain no latex or acrylic bonding agents or additives.

Tools:



Leaf and square- available in 3/8", ½", 5/8" & ¾". Used for applying and detailing the patching mortars.



Margin Trowel- available in 1 ½". Used for applying and detailing the patching mortars.

2. Single cemetery marker set in concrete frame (encasement in concrete)





Need to chip off the concrete frame and back, carefully, in order to prevent the concrete from deteriorating the original stone marker. Remove the coating on the stone's surface with the paint strippers. These strippers should be water based paint removers that are biodegradable, non-toxic, user friendly and environmentally safe.

If the strippers will not remove the surface coating, then the coating is a mortar coating and it will not be able to be removed.
Once the concrete has been removed from the stone marker and the surface stripped, set the stone onto the base, or into the ground.

Another example of a marker encased in concrete.



3. Marble marker with marble base needing repair



This marble marker has been glued together, repaired in the past, with concrete. Delicately remove the concrete patch from this marker. The marker will probably be in 3 or more pieces when all the concrete is removed.
Reglue the pieces back together with epoxy glue, then patch with a marble repair mortar, where needed.
Remove the mortar on the bottom of the marker between the marker and the base and then patch where needed.

4.In ground tombs- limestone tombs



Reset the ground stones then repoint the joints with historic pointing mortar. Use a mineral based pointing mortar that is specifically designed and formulated for the restoration of limestone, sandstone and brick mortar joints. It should contain no latex or acrylic bonding agents or additives, and should be compatible with historic masonry.

You would leave the tomb top alone if there is no damage.
If the tomb top is in disrepair and needs restoration, you would follow the repair to the ground stones as above and then work on the tomb top. Remove all concrete patches to the top and all other materials used to keep the top intact.

Reglue the top pieces with an epoxy glue and then patch with a stone restoration mortar. This mortar should be completely vapor permeable at any depth and contains no latex or acrylic bonding agents or additives.

This repair of the tomb top will take a lot of patching material (due to the large area of repair) but will not take a lot of time (due to no decorative work).





5. Mausoleum repairs – i.e. DAUES – White Glazed Brick Construction, painted.





Need to strip off all the painted coating using paint strippers. Remove all mortar in the joints. (Cathedral Stone Products has introduced a new revolutionary system called the CSP Joint Router. This joint router attached to common angle grinders and can be used with an industrial vacuum to quickly remove old mortar prior to repointing. This system is best suited for projects where the mortar is softer than the masonry units. This allows the router to follow the joints without cutting the masonry units.)

Repoint all joints (100%), except the roof, with a historic pointing mortar.

Roof - Repoint the roof leaving ½ inch space, and then caulk the ½ inch space on the entire roof with a polyurethane sealant.
On the side of the mausoleum where the bricks are bowing outward, take out all the bricks in this area and relay them with mortar.

Reglaze bricks where spalling is observed (where the white brick has popped off) with glaze repair for brick.

Restoration of the bronze plaque on the outside of the Mausoleum- clean the plaque with a wire brush to remove debris and dirt and get back to the bronze finish. Then apply a good outdoor lacquer. Would not recommend removing the plaque to refinish.

6. Marble marker with decorative top



Make repairs to the marker per previous instructions.
The top decorative piece, marble, is deteriorating due to standing water and climate issues (freezing and thawing of the standing water). Clean the top decorative piece and then apply water repellent material to the entire top to preserve. Penetrating oil and water repellent can be applied to brick, grout, unpolished marble, limestone, tile, and other masonry surfaces. This repellent dries clear on surface and creates an easily cleanable surface, leaving a natural finish. It works by penetrating into the substrate, is not topical.

7. Limestone markers with noticeable cracks that allow spalling.







Repair- Drill 1 inch deep holes in the top, approximately 1 inch apart, putting water based clay along the entire crack, and then inject Micro Injection Grout into each of the holes. You then put clay on top of each hole

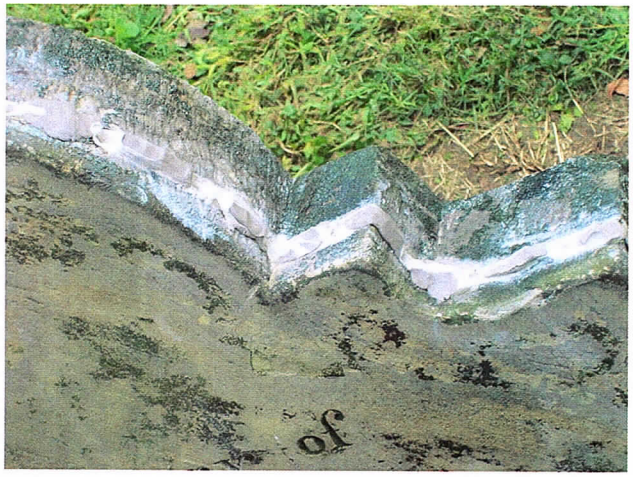


Syringe Kit- Luer Lock Syringe (Metal tips for Luer Lock Syringe available in 10 gauge and 12 gauge), Taper tip syringe. Injection syringes are used for small injection grout applications.

You need to clean off any runs on the stone with water immediately. Allow the grout to dry; cleaning off the clay from the stone, and scraping off the excess. After a week or more, you can cut back the grout ½ inch and patch over the area with patching material.

See following photos on the above process.





8. Child Marker/ Monument with tomb



Clean and repair the marker/ monument if needed.
Remove the sides of the tomb from the ground carefully, clean out the middle tomb area (trash and debris) and then relay the stones into the ground.

9. Marker in multiple pieces on the ground, and missing areas of the marker.



Would suggest carefully removing the marker pieces from the ground and then taking them to a restoration artist's studio to clean, repair and patch with restoration materials. It would be important to look for any historical photos in existence to help the artist restore the marker per the original design.

10. Marble marker on base with multiple cracks.

    Clean, remove the old mortar holding the pieces together, reglue with epoxy glue if the pieces separate, then patch with the Marble Repair Mortar.

    If the marble marker is on the ground, repair as above and then reset the marker onto a base if there is one, or into the ground.





11. Retaining walls in the cemetery





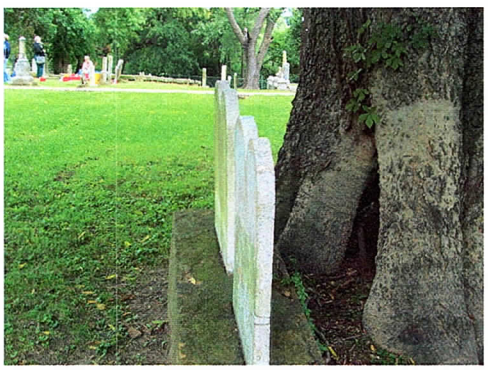
Cut out old mortar and repoint areas where needed. If the stones have fallen down or moved, need to relay the stones in mortar.

12. Limestone base with marker



Need to dig up the entire base from the ground, clean it, glue (epoxy glue) and patch the base where needed, then put it back into the ground and reset the marker onto the base.

13. Monuments/ markers in close proximity to root systems or trees.





If the trees and or root systems begin to cause marker or monument movement, you need to carefully move the entire marker / monument with the bases. Each case will require specific

methods and or instructions, depending on the situation. You would want to watch and record movement carefully and act on the situation prior to marker damage.

COMMON REPAIRS

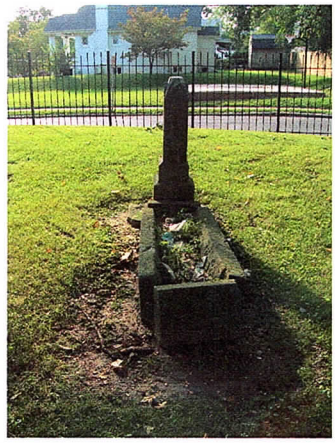


Replacing a base for a headstone that has either been removed or damaged is considered a common repair that can be performed by a layman.

A stone with a clean break may also be easily repaired.

Dig up the entire base from the ground, clean it, glue (epoxy glue) and patch the base with a patching material where needed, then put it back into the ground and reset the marker onto the base.

Child Marker/ Monument with tomb



Clean and repair the marker/ monument if needed. Remove the sides of the tomb from the ground carefully, clean out the middle tomb area (trash and debris) and then relay the stones into the ground.

PROBING

A common problem in old cemeteries is burial of stones that may have fallen over time. This was caused by humans, livestock, or natural subsidence. Downed stones become buried in leaf litter or by eroded soil, and become buried over time. It is necessary oftentimes to probe in the soil to locate such stones.

Before probing for downed stones, check with local electrical or gas company to make sure there are no buried utilities (King et al. 2004). Many things can be used for a probe, the simplest being a barbeque skewer (Trippe-Dillon n.d.). Plumbing supply stores also sell a "smart stick" that can be used as a probe (King et al. 2004). These are metal or fiberglass, 3-4' long, with a T handle. Probes should be no longer than 4 feet.

To locate buried stones, carefully probe into the ground in gaps in rows of stones, immediately in front of or behind standing fragments or bases, open areas within the burial ground, areas where vegetation dies during dry weather, or sites where markers were once known to have occurred. To find downed stones, use a methodical approach, such as a grid system, to probe voids and depressions, every 8-12 inches (King et al. 2004). Use marking flag to mark sites where the probe hits objects with a higher pitched "tink" sound, rather than low-pitched thud sounds.

Once a downed stone is suspected, digging should be done slowly and carefully. There should be an attempt to locate all fragments, and markers should be removed from the ground with great care to avoid damage.



CEMETERY SAFETY TIPS

Although they are vulnerable, historic cemeteries can also be a hazardous place to visit. It is always a good idea to be aware of your surroundings, whether you are visiting or working in the cemetery.

1. Watch where you are walking. It is not unusual for broken stones to be found sticking out of the ground in unusual places. Tree roots from old, established trees can also be hazardous.

2. Watch your footing. For various reasons, there are a lot of holes found in cemetery grounds and a heavy layer of leaves in the fall can cover up a multitude of unforeseen hazards.

3. When clearing vegetation from cemetery grounds, be aware of any poisonous vegetation, such as poison ivy, poison oak and sumac.

4. Wear gloves when working around metal fences or when clearing out brush; many rural cemeteries may have hidden barbed wire in the overgrowth. Watch out old for rusty metals.

5. Do not approach or confront any animal you may come across in the cemetery.

6. Watch out for snakes, especially in rural cemeteries.

7. Although tempting, do not try to pick up or move a headstone by yourself. Stones are heavier than they appear and may also be more fragile than you think.

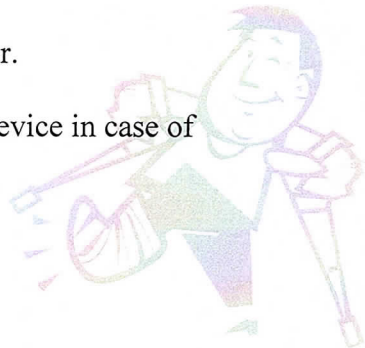
8. Be careful not to push or lean on a headstone. It may fall in an unexpected direction – ON YOU! Be wary of stones standing in soft ground. If the stone is unstable, leave it alone!

9. When re-setting broken stones, watch out for your fingers and toes!

10. Bring a first aid kit with you when a workday is planned at the cemetery. Cuts, scrapes, stings, etc. are common.

11. Do not visit or work alone in a cemetery, always bring a partner.

12. Bring a cell phone with you or some type of communication device in case of emergencies.



BASIC MAINTENANCE

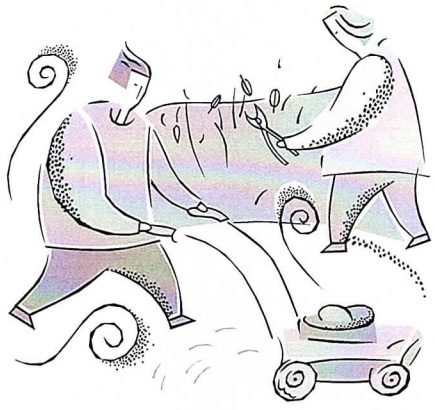
Maintenance and preservation go hand in hand when it comes to cemeteries. To place an item such as a cemetery on the National Register of Historic Places is great but if the cemetery is not maintained properly then the significance of the nomination is greatly compromised. Even if the cemetery is not on the National Register it should be maintained out of respect for those who are buried. Maintenance is simple after the initial clean up. Keeping the grass mowed, trees trimmed, and good lighting not only enhances the over all look of the cemetery to the general public but discourages vandalism which seems to be the main cause of cemeteries being lost.

Proper use of tools to keep cemeteries free of grass and limbs must be observed diligently in cemetery maintenance. Power mowers and weed eaters when carelessly used have and can still scar and break tombstones, especially old ones since they are usually made of softer stone. So, to minimize damage to old stones, grass near these stones should be pulled by hand. When power mowers and weed eaters are used guards should be in place to deflect any debris that is being thrown that may cause damage to the stones. With mowers it is best to use a mulching mower when possible since there is not an outward discarding of debris. Any cracked or broken stone should be reported immediately to the proper authority so to minimize further damage to the stone.

Lighting is also essential to maintain security in a cemetery. Lights should be checked regularly and changed if needed. Good lighting reduces the chance of vandalism. It is cheaper to change a bulb then repair vandalized stones. A well lit cemetery draws the public to keep an eye on the cemetery which deters vandalism.

A regular check of the cemetery is also essential. Look for stones that have cracked, damaged or destroyed and report these to the proper authority. Also, check fences for needed repairs and vandalism.

When a cemetery is well maintained it will draw the public focus which will give the cemetery a better chance of not being forgotten and falling in disrepair.



CEMETERY ETIQUETTE

- When visiting a cemetery, first look for any signage that may indicate certain restrictions within the cemetery. Activities such as rubbings may be prohibited. Obey the rules of the cemetery.
- Treat the cemetery with the respect that it deserves.
- Take only photos and leave only footprints.
- Refrain from touching any of the stones or monuments, unless you have received permission from the cemetery caretaker.
- It is a federal offense to remove any or a part of any grave marker from a cemetery.
- Do not sit or lean on any marker or monuments or place any items on them.
- Do not remove memorial items or flowers that have been placed on a gravesite by their loved ones.
- Do not bring alcohol, firearms, or entertainment items into the cemetery. A cemetery should be a quiet, peaceful place of reflection.
- Maintain supervision of your children and teach them how to respect the dead and honor their memory.
- If you must bring your pets with you, keep them on a leash and under control. (Please do not let your pet urinate on the markers!)
- Do not disturb any of the plant life within the cemetery or add any plant life without the permission of the cemetery caretaker.
- Do not litter (please!) However if you come across any litter, DO pick it up and deposit it in the nearest trash receptacle.
- Do not leave any cigarette butts in the cemetery.
- Report any vandalism or suspicious behavior to the cemetery caretaker or to the authorities.

ICONOGRAPHY

Many gravestones are decorated with images, some of which are decorative and others that provide some insight into the deceased's life (Trippe-Dillon n.d.). Oftentimes, but not always, these images fall into three main categories: occupation or station in life, Christian life, and the Resurrection. Among the symbols commonly found on local markers are:

Angels – which denote spirituality, guard the tomb, guide the soul, and direct living visitors to think of heaven. Cherubs oftentimes appear on markers of children.



Banner – signifies victory or triumph

Bible or Book – a symbol of wisdom or faith. Often the book is open, which means the deceased was revealed the word of God

Chalice – symbol of wine, which symbolizes the blood of Christ



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Chain Links – three chain links may be a symbol of the Trinity, or more often, and sometimes surrounding the letters F, L, and T, are symbols of the Independent Order of Odd Fellows. The F, L, and T stand for friendship, love, and truth.

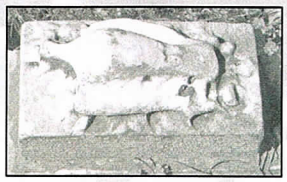
Cross – symbol of the hope of resurrection on Christian markers



Crown – attests to the soul's achievement, or if on a cross, represents the sovereignty of Christ



Dove – symbol of the Holy Spirit, peace, or innocence. A dove descending from Heaven is assurance of passage to Heaven.



Eye – God's eye watching over good Christians

Flowers – the life of man, frailty of life, or impermanence. A broken flower (usually a rose) symbolizes life cut short, and is usually used on young people's stones. A lily of the valley stands for purity and humility, palm for salvation, and rose for sorrow and condolence.





Gateway – departure from life, entrance to heaven.

Hands - (clasping, praying, pointing up/down, blessing) – relationship to survivors, pointing to heaven, deceased has been chosen by God, or endurance of human feelings; symbol of leaving



Handshake – Greeting, last goodbye, friendship, unity.



Lamb – innocence, the Lamb of God. This is almost always on child markers, and may also be combined with a crown, palm branch, cross, or chalice.



Masonic – compass and square surrounding the letter "G"; the Masonic Order is a fraternal organization for men



Plants – numerous examples; ivy symbolizes friendship and fidelity; thistle is Scottish descent, or remembrance; a vine may symbolize Christ's blood (wine); wheat in sheaves is the divine harvest



Scroll – symbol of life and time.



Star – the spirit, Divine presence, enlightenment, wisdom. Represents light struggling against darkness



Sword – martyrdom, courage, or warfare



Tree or Stump – Woodmen of the World; a fraternal and insurance organization.

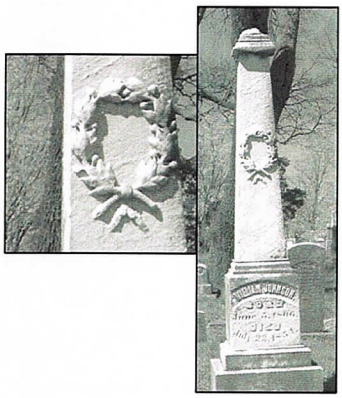
Urn and/or Willow – the urn is a symbol of death, or having the soul flee the shrouded body. The urn and willow, or just a willow is connected with mourning for the deceased.





Wreath - A symbol of the victory of the redemption; victory; the laurel wreath depicts someone who has attained distinction in the arts, literature, athletics or military. The ivy wreath is symbolic of gaiety or joviality





Iconography Bibliography

Anson-Cartwright, Tamara. 1998. Landscapes of Memories: A Guide for Conserving Historic Cemeteries Repairing Tombstones. Ministry of Citizenship, Culture and Recreation, Queen's Printer for Ontario, Toronto, Canada. 72 pp.

Historic Cemeteries Conservation Trust of New Zealand. Undated. Best Practice in Cemetery Conservation. Historic Cemeteries Conservation Trust of New Zealand. Accessed 9 November 2006 at: http://www.denedin-direct.co.nz/sites/cemeteries/cemeteries/cemeteries_bestpractice.htm

King, Gregg G., Susan Kosky, Kathleen Glynn, and Gladys Saborio. 2004. Michigan Historic Cemeteries Preservation Guide. Charter Township of Canton, Historic District Commission and Department of Leisure Services, Canton Township, Michigan.

Trippe-Dillon, Tammie. n. d. Grave Concerns: A Preservation Manual for Historic Cemeteries in Arkansas. Arkansas Historic Preservation Program, Little Rock.

McGahee, Susan H., and Mary W. Edmonds. n. d. South Carolina's Historic Cemeteries: A Preservation Handbook. South Carolina Department of Archives and History, Columbia. 51 pp.

Texas Historical Commission. 2001. Preserving Historic Cemeteries: Texas Preservation Guidelines. Texas Historical Commission, Austin. 21 pp.

Strangstad, Lynette. 1995. A Graveyard Preservation Primer. Association for Gravestone Studies, Greenfield, Massachusetts. 144 pp.

Association for Gravestone Studies. 2005. Association for Gravestone Studies Index Page. Association for Gravestone Studies. Retrieved on 15 August 2007 from <http://www.gravestonestudies.org/>

STANDARDS FOR PRESERVATION, REHABILITATION, RESTORATION AND RECONSTRUCTION

The following standards for preservation, rehabilitation, restoration and reconstruction have been taken from the Secretary of the Interior's Standards for the Treatment of Historic Properties and the Guidelines for the Treatment of Cultural Properties. These Standards are included in this manual because they are universally accepted preservation practices and because these Standards have been adopted by the City of Cape Girardeau as the standard treatment for all of its local historic properties. To find our more or to read the entire set of The Secretary of the Interior's Guidelines, visit the National Park Service web site at:
http://www.nps.gov/history/hps/tps/standards_guidelines.htm

PRESERVATION STANDARDS

PRESERVATION IS DEFINED as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of

craftsmanship that characterize a property will be preserved.

6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Preservation as a Treatment

When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment.

REHABILITATION STANDARDS

REHABILITATION IS DEFINED AS the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in a such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Rehabilitation as a Treatment

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment.

STANDARDS FOR RESTORATION

RESTORATION IS DEFINED AS the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

1. A property will be used as it was historically or be given a new use which reflects the property's restoration period.

2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.
6. Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.
7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.
8. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
9. Archeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
10. Designs that were never executed historically will not be constructed.

Restoration as a Treatment

When the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods; when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned, Restoration may be considered as a treatment. Prior to undertaking work, a particular period of time, i.e., the restoration period, should be selected and justified, and a documentation plan for Restoration developed.

STANDARDS FOR RECONSTRUCTION

RECONSTRUCTION IS DEFINED AS the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

1. Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture, and such reconstruction is essential to the public understanding of the property.
2. Reconstruction of a landscape, building, structure, or object in its historic location will be preceded by a thorough archeological investigation to identify and evaluate those features and artifacts which are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.
3. Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.
4. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color, and texture.
5. A reconstruction will be clearly identified as a contemporary re-creation.
6. Designs that were never executed historically will not be constructed.

Reconstruction as a Treatment

When a contemporary depiction is required to understand and interpret a property's historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction, Reconstruction may be considered as a treatment.

EPILOGUE

Preservation: To keep safe from injury, harm, or destruction.
Rehabilitation: To restore to a former state.
Restoration: To bring back to or put back into a former or original state: RENEW.

The first thing that needs to be made clear is that restoration is not always preservation and may do more harm then good. Restoring a cemetery to like new condition can entail sandblasting stones to make them white or using harsh chemicals such as bleach or ammonia which does more harm than good. Rehabilitation is what needs to happen which is bringing back the cemetery to stable condition. This is the best way to preserve a cemetery.

Preservation of a cemetery calls for a well thought out plan of attack. Rushing a preservation project can cause more harm than good. According to specialist in the field of preservation, a plan should be developed which includes: site improvement, stone conservation, site security, interpretation, and on going maintenance. With in these items are sub list which must be considered.

In the area of site improvement relative questions must be answered. How is the area being taken care of in the way of foliage? Do you plan on introducing new plants and are they historically accurate to the cemetery for the time period that you are interpreting and who will be doing the research? Is there erosion or compaction problems? If there is fencing, does it need repair or treatment? Is there a walkway and if so does it need to be repaired? If walkways are added, how will they be built and placed without damaging the integrity of the cemetery?

Within the question of stone conservation certain items must be considered. Is there damage to the stones and if so, what is the damage? What stones should be treated first? How will you deal with damaged stones and fragments? Once repaired and treated, what will be the guide for maintenance of the stones?

Security is another item of importance. If possible, should the cemetery be locked during certain hours? Can a fence be placed around the cemetery without compromising integrity? Is lighting available and how will it affect the neighbors? Is adding surveillance cameras feasible?

Interpretation of the cemetery is important. Are there interpretive markers or plaques on the site and if not, can they be added without taking away from the integrity? Will the site play a part in public education? How do you protect the site while stimulating public visitation which may lead to funding?

Maintaining the cemetery after rehabilitation is complete is an ongoing problem and certain items must be considered. Who will maintain the cemetery? Who is responsible for trash pick up? Who is responsible for opening and closing the cemetery, if there is a lock? Is there funding

for a professional caretaker or will this have to be on a volunteer basis? If a caretaker is hired or city caretakers are used, do they require additional education on maintenance?

Rehabilitation is great but is it sustainable? The best way to sustain a cemetery is through community involvement. Continued news releases during rehabilitation can draw the community into the process and stimulate volunteers. After rehabilitation is complete, hold a rededication ceremony and invite the community, especially government officials who may have a way of funding the continued preservation of the cemetery.

There are no quick preservation techniques. Individuals must be committed for the long haul in order to obtain the desired results. The items in the previous sections are just some things that need to be considered when it comes to cemetery preservation. Each cemetery project can differ in what needs to be considered.

WEB SITES and LINKS

www.cathedralstone.com Cathedral Stone Products, Inc.
www.jahnmortars.com Mortar mixes
www.ncptt.nps.gov National Park Service
www.gravestonestudies.org The Association for Gravestone Studies
www.chicora.org The Chicora Foundation
www.potifos.com/cemeteries.html Cemeteries, Graveyards and Burying Grounds. A link to Resources on cemetery history and preservation
www.savinggraves.org Savings Graves
www.cemeteryfriends.org.uk/ - The National Federation of Cemetery Friends, a site developed and maintained by a cemetery preservation league based in the United Kingdom.
www.internment.net
www.historicgraveyards.com Links to various cemetery resources
www.arkansaspreservation.org/preservation-services/cemetery-preservation/ The Arkansas Historic Preservation Program
www.arkansaspreservation.org/pdf/publications/grave_concerns.pdf - Grave Concerns, A preservation Manual for Historic Cemeteries in Arkansas. Developed and published by the Arkansas Historic Preservation Program, an agency of the Department of Arkansas Heritage

SUPPLIERS

www.cathedralstone.com Cathedral Stone Products, Inc.
www.jahnmortars.com Mortar mixes
www.GranQuartz.com (Akepox 2010 Epoxy)
www.hilgartner.com. (Mastico Expoxy)
www.granitecitytool.com Tools and supplies for stone work and restoration
www.benmeadows.com Probes

CEMETERY PRESERVATIONISTS/PROFESSIONALS:

www.creativerestoration.com Creative Sculpture and Restoration, Gary Keshner
www.stonehugger.com - Stonehugger Cemetery Restoration
www.yorkcemeteryservices.com York Cemetery Services
www.graveyardgroomer.com Graveyard Groomers, John Walters
www.gravestoneconservation.com New England Services, Jonathan Appell
maurath1@juno.com John Maurath, Tombstone Restoration Services
Stone Saver Cemetery Restoration, Mark Davis, (765) 348-8061

DEFINITIONS

Altar Tomb A solid, rectangular, raised tomb or gravemarker resembling ceremonial altars of classical antiquity and Judeo-Christian ritual.

Bevel Marker A rectangular gravemarker, set low to the ground, having straight sides and uppermost, inscribed surface raked at a low angle.

Biological Activity Lichen, mold, mildew found on the surface of a stone

Bolster A form of gravestone where a cylinder (usually 18 inches in diameter and 36" or more long) rests on its side on a footing; most common in the early 20th century.

Burial Ground An area set aside for burial of the dead; a common burying ground of a church or community.

Burial cache A place of concealment for burial remains and objects.

Burial mound A mass of earth, and sometimes stone or timber, erected to protect burial chambers for the dead.

Burial site A place for disposal of burial remains, including various forms of encasement and platform burials that are not excavated in the ground or enclosed by mounded earth.

Cairn A mound of stones marking a burial place.

Cemetery An area set aside for burial of the dead

Cenotaph A memorial in honor of a deceased person who is interred elsewhere literally, "empty tomb".

Chapel A place of worship or meditation in a cemetery or mausoleum

Chest marker A solid, rectangular, raised gravemarker resembling a chest or box-like sarcophagus.

Cinerary urn A receptacle for cremation remains, or ashes, in the shave of a vase.

Columbarium A vault or structure for storage of cinerary urns.

Contumulation The sharing of a grave or a tomb.

Coped Stone Any stone with a coping, especially one with a peaked (roof-shaped) top. Common in British cemeteries form the 18th to early 20th centuries.

Coping A narrow ornamental thickening and overhang of the margin of the top of a gravestone.

Cremation The burning of human remains before their disposal.

Crematorium A furnace for incineration of the dead; also a crematory.

Cremation Area An area where ashes of the cremated dead are scattered or contained.

Crypt An enclosure for a casket in a mausoleum or underground chamber, as beneath a church.

Delaminating The stone is splitting off in layers

Emerging Crown A type of gravestone where one portion of the stone has been fully carved, while another portion remains undressed or only partially dressed, giving the impression of a stone that has been incompletely carved. The emerging stone was most common in the late 19th century and early 20th century and symbolized a life partially completed but cut short. Emerging stones are nearly always made of granite.

Epitaph An inscription on a gravemarker identifying and/or commemorating the dead.

Exedra A permanent open air masonry bench with high back, usually semicircular in plan, patterned after the porches or alcoves of classical antiquity where philosophical discussion were held; in cemeteries, used as an element of landscape design and as a type of tomb monument.

Family cemetery A small, 0rivate burial place for members of the immediate or extended family; typically found in rural areas, and often, but not always, near a residence; different from a family plot, which is an area reserved for family members within or larger cemetery.

Flush Marker A flat, rectangular gravemarker set flush with the lawn or surface of the ground.

Footstone A flat, slab-like stone grave marker placed at the foot end of a grave. Footstones, are used only in conjunction with headstones and usually are considerably smaller and less ornate, often bearing only initials as inscriptions.

Gatehouse A building at the main entrance to a cemetery that is controlled by a gate; a shelter or habitation for the gate keeper.

Grave A place or receptacle for burial.

Grave Depression A hollow in the surface of the ground over a grave brought about by the collapse of a disintegrating coffin.

Gravemarker A sign or marker of a burial place, variously inscribed and decorated in commemoration of the dead.

Graveyard An area set aside for burial of the dead; a common burying ground of a church or community.

Grave shelter A rectangular, roofed structure usually of wood, covering a gravesite, enclosed by boards or slats or supported by poles; in tribal custom used to contain burial offerings and shelter the spirit of the dead; also grave house.

Ground-penetrating radar (**GPR**) is a geophysical method that uses radar pulses to image the subsurface. A method used for locating unmarked graves.

Headstone An upright stone marker placed at the head of the deceased; usually inscribed with demographic information, epitaphs, or both; sometimes decorated with a carved motif.

Incising A common method of making inscriptions or producing artwork on concrete markers, particularly in folk traditions.

Initial Stone A gravestone with initials carved at the base as a maker's mark.

Inscription The writing on a grave marker. The inscription usually includes biographical information and epitaph

Inset Refers to the placing of objects in the concrete of a grave marker when it is wet.

Inter To bury or put a dead body into a grave.

Interment A burial; the act of committing the dead to a grave.

Ledger A large rectangular gravemarker usually of stone, set parallel with the ground to cover the grave opening or grave surface.

Lich A quaint old term meaning "body", either living or dead. Lich is an Old English term which inspired many hyphenated constructions like: lich-bell (a bell rung before the corps), lich-gate (the covered entrance to a cemetery where mourners waited for the arrival of the clergyman to conduct the graveside service), lich-house (a mortuary), lich-lay (a tax to provide for churchyards), and a lich-rest (a grave).

Lych Gate Traditionally, a roofed gateway to a church graveyard under which a funeral casket was placed before burial; also lich gate; commonly, an ornamental cemetery gateway.

Mass grave – A grave where many people are buried together.

Mausoleum A monumental building or structure for burial of the dead above ground; a "community" mausoleum is one that accommodates a great number of burials.

Memorial A grave marker, usually an ornate one.

Memorial Service A ceremony commemorating the deceased without the remains present

Memorial Park A cemetery of the 20th century cared for in perpetuity by a business or nonprofit corporation, generally characterized by open expanses of greensward with either flush or other regulated grave markers.

Monolith A large, vertical stone gravemarker having no base or cap.

Motif A theme or representation, such as a rose, cherub, or urn and willow, found on a headstone or memorial..

Obelisk A gravestone that is tall, slender, square in cross-section, and pointed at the top. Obelisks usually are quite large and imposing, indicating the wealth and stature of the deceased.

Openwork - Carving that cuts entirely through a stone, creating arches, loops and openings.

Orientation The direction of the burial axis of a grave. The direction to which the head points is usually considered the orientation.

Ossuary - A receptacle for the bones of the dead.

Outlying Grave – a grave that is located well away form others. Such graves often are given to members of society deemed unacceptable.

Placophobia A fear of tombstones.

Plot An area of a cemetery given over to an individual, family or other social group

Polyandrium A cemetery; originally a cemetery for the victims of great battles.

Portland Cement A hard gray material *improperly* used to repair gravestones or to encase fragments (material commonly used to construct sidewalks, driveways, foundations, etc).

Probe: A t-shaped tool approximately 4 to 5 feet long used to probe the ground for the purpose of locating unmarked burials.

Receiving Tomb A vault where the dead may be held until a final burial place is prepared; also receiving vault.

Rubbing - Means of obtaining a copy of the bas-relief carving on a gravestone or similar object.

"Rural" Cemetery A burial place characterized by spacious landscaped grounds and romantic commemorative monuments established in a rural setting in the period of the young republic and at the dawn of the Victorian era; so called for the movement inspired by the American model, Mount Auburn Cemetery (1831) in the environs of Boston; a cemetery developed in this

tradition. The term is used with quotation marks to distinguish this distinctive landscaped type from other kinds of burying grounds occurring in the countryside.

Scaling Advanced loss of stone which may vary in depth.

Sepulcher - A burial vault or crypt.

Sexton A digger of graves and supervisor of burials in the churchyard; commonly, a cemetery superintendent.

Spall (spalling) Occurs when part of the stone flakes or splits away through frost action or pressure.

Tablet - A rectangular gravemarker set at a right angle to the ground, having inscriptions, raised letterings or carved decoration predominately on vertical planes and top surface finished in straight, pedimented round, oval or serpentine fashion.

Taphophile One who loves cemeteries and funerals; someone who shows interest in the trappings of death.

Terrazzo - A synthetic material sometimes used for grave markers. Terrazzo consists of chunks of stone, glass or ceramics mixed into a fine cement.

Undressed Referring to a stone marker that has not had its surface completely smoothed or otherwise finished.

Vault Underground tombs. A modern concrete shell placed over a coffin to prevent sinking of the ground surface in a cemetery.

Vivisepulture Burial alive

Wedgestone A style of grave marker, usually of stone but occasionally of concrete; essentially wedge-shaped so that the bottom surface lies flat on the ground, the back surface runs more or less vertically and the top surface slope, from the top of the stone at its back to ground level at its front.

This **Cemetery Preservation and Maintenance Manual**

Is a project of the

Historic Preservation Commission

Of the City of Cape Girardeau, Missouri

Compiled by the following Committee Members:

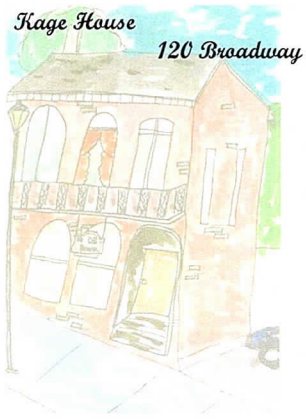
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Old Lorimier Cemetery

Est. 1808

500 N. Fountain St.

Cape Girardeau, MO



