

HISTORIC LANDMARK COMMISSION
APRIL 22, 2013
APPLICATION FOR A CERTIFICATE OF APPROPRIATENESS
C14H-1990-0006
Mount Bonnell
3800 Mount Bonnell Road

PROPOSAL

Repair the original, historic limestone monument on Mount Bonnell, or install a new granite monument.

PROJECT SPECIFICATIONS

The applicant proposes to repair the original, historic limestone monument that has been damaged over time by filling existing gaps where the stone has cracked or deteriorated and attaching and aligning the remaining fragments of the monument. The filling material will be either masonry or stone, depending on additional analysis. The lettering on the monument will also be reconstructed to restore the stone to its original appearance. The applicant also seeks, in the alternative, approval of the proposal to erect a new monument on the site (see attached drawings).

STANDARDS FOR REVIEW

The Commission's Standards for Review of applications for Certificates of Appropriateness include:

- Do not destroy the distinguishing original qualities or character of a building, structure, or site and its environment. Avoid the removal or alteration of any historic material or distinctive architectural features.
- Repair, rather than replace deteriorated architectural features wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Base the repair or replacement of missing architectural features on accurate duplications of features, substantiated by historical, physical, or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.
- Contemporary design for alterations and additions to existing properties are appropriate when such alterations and additions do not destroy significant historic, architectural, or cultural material and such design is compatible with the size, scale, color, material, and character of the property, neighborhood, or environment.

COMMITTEE RECOMMENDATIONS

Not fully reviewed, but the Committee asked for certain clarifications which have been provided by the applicant.

STAFF RECOMMENDATION

Approve the application for restoration of the original, historic monument in accordance with the Commission's Standards for Review, which follow the Secretary of Interior's Standards for Rehabilitation, in prioritizing repair of the existing historic material. In the event that the Commission does not approve the restoration of the original, historic monument, then staff recommends approval of a compromise proposal which maintains the remains of the existing monument on site as well as the installation of a new monument

which could commemorate the 75th anniversary of the dedication of the park. However, any new monument on the site should be more in keeping with the existing monument in terms of materials and scale.

DATE of SUBMISSION:



Application for Certificate of Appropriateness for a City Landmark or Local Historic District

Adopted December 2012

Permit Information	
For Office Use Only	BP- _____ PR- _____ C14H/LHD - _____
	Property Name or LHD: _____ Contributing/Non-contributing
	<input type="checkbox"/> RELEASE PERMIT <input type="checkbox"/> DO NOT RELEASE PERMIT <input type="checkbox"/> HLC REVIEW _____ FEE PAID: \$ _____
	HISTORIC PRESERVATION OFFICE _____ DATE: _____
Property Information	
Address: Mt. Bonnell at Covert Park, 3800 Mt. Bonnell Road, Austin, TX 78731	
Scope of Work	
RECOMMENDATION SOUGHT BY HLC TO A. RESTORE EXISTING MONUMENT OR B. REPLACE WITH A GRANITE (NEW) MARKER AND RELOCATE EXISTING MONUMENT AT ANOTHER LOCATION OR FACILITY.	
Applicant	
Name: Kim McKnight, MSHP, Project Coordinator & Cultural Resource Specialist	
Address: 919 W. 28 1/2 Street	
City/Zip: Austin, TX 78705	
Phone: 512/974-9478	
Email: kim.mcknight@austintexas.gov	
Owner	
Name: Jeff Larsen, Parks Grounds Manager, Parks and Recreation Dept.	
Address: 12138 North Lamar Blvd.	
City/Zip: Austin, TX 78753	
Phone: 512/974-9593	
Email: _____	
Architect or Contractor Information	
Company: _____	
Address: _____	
City/Zip: _____	
Phone: _____	

Owner's Signature

Date

4/4/2013

Applicant's Signature

Date

4/4/13

4.18.2013

4/4/2013

Updated Assessment of Mt. Bonnell Monument Restoration/Rehabilitation from Catherine Williams:

Hi Kim,

Thanks for sending the pdf with the clearer photos of the loss in the monument. The missing piece is much larger than I initially understood from our phone conversation and the smaller photos you sent previously, so the additional cost and time estimate I gave on the phone is not accurate.

Restoration of the monument is certainly still possible. The extensive photographic documentation you have will definitely provide enough information. However, with this large central piece now missing, the restoration will be more difficult and will take significantly more time. This is due to two main factors:

1- Alignment and attachment of the existing pieces is much more complicated now. The gap will need to be filled, and, because it is a large central piece, precise shaping of that fill is critical to achieve proper alignment for the remaining pieces. The fill would either be made of masonry or stone. To make the decision I would need to examine the loss and the existing pieces and do some calculations (e.g. look at the surface texture, determine the alignment and contact points of the adjacent pieces, identify the angle at which the adjacent pieces attach, the width of the gap, and determine the load the fill has to carry, find suitable masonry mixtures, etc.) This research, the creation of the fill, and the precise shaping will take more time, maybe 3-4 additional days.

2- A significant part of the face of the monument, including lettering, will need to be reconstructed. This can definitely be done in a way so the loss is not readily apparent - the color and texture of the stone can be matched in a durable (masonry) material that is compatible with the existing limestone, and the lettering can be shaped based on context and the excellent photographic documentation you have. But this fine aesthetic work takes time, maybe adding an additional 2-3 more days.

SILVER LINING ART CONSERVATION, LLC

CATHERINE L. WILLIAMS

OBJECTS CONSERVATOR

P.O. Box 4390 AUSTIN, TX 78765

512.695.3260

CAT_WMS@YAHOO.COM

October 12, 2011

Kim McKnight
 Historic Preservation Specialist
 City of Austin Parks and Recreation Department

Dear Kim,

Thanks for contacting me about the potential for restoration of the original Mt. Bonnell Monument. It was great to meet you and to see all the pieces of the monument have been saved. In the past, I had noticed the large fragment still up on Mt. Bonnell and wondered what happened to the rest of it. After seeing the saved pieces in storage, I went back up to examine the large piece to consider the feasibility of restoration.

Based on the examination of the stone pieces out at storage and the large piece still remaining at Mt. Bonnell, I am certain the monument can be restored. The majority of the pieces appear to have been saved, and all pieces are in good condition. The pieces out at storage have been well cared-for and the broken edges are not eroded, weathered, or dirty. This is really great, because this means that when joined, the pieces will lock tightly together, with only a fine crack visible between pieces. The large fragment at the top of Mt. Bonnell does show some weathering on the surface and edges of the broken face, but there is still plenty of surface topography to insure a good alignment and bond between the large piece and the broken pieces. A conservator skilled with color matching mortar would be able to make any gaps and fine cracks along the repairs almost invisible. Based on the examination of the pieces, I am confident that restoration of the monument could be done, and if done properly, and would result in a whole, legible, aesthetically integrated monument with repairs that are not readily apparent to the casual visitor, and would also make the monument stable for continued outdoor exhibition.

Restoration of the monument would likely entail:

- Cordoning off the central area from visitors during construction (The walkways could remain open.)
- Moving all pieces to the top of Mt. Bonnell, and setting up a tripod crane on site.
- Rigging and "dry fitting" the broken pieces in place on the large piece to mark proper alignment and determine order of reattachment.
- Drilling holes into the broken edges of the large pieces of stone.
- Setting stainless steel or non-metallic pins into the holes to insure precise alignment of the pieces and additional strength across the broken edges. (*Stainless steel or non-metallic pins must be used to eliminate the possibility of future damage to the stone from corrosion of metal pins.*)
- Adhering center area of the break edges with a weatherproof adhesive.
- Attaching smaller pieces with weatherproof adhesive and lime mortar.
- Filling cracks along repaired breaks, recent chips, and disfiguring losses with a color-matched lime mortar.
- Hand-tinting areas filled with lime mortar to match color variations in the stone.

SILVER LINING ART CONSERVATION, LLC

CATHERINE L. WILLIAMS

OBJECTS CONSERVATOR

MT. BONNELL MONUMENT

PAGE 2

To give you an example of conservation techniques that would be used, here are two videos from the National Center for Preservation Technology and Training (NCPTT):

Lifting and Hoisting Stone Grave Markers (2011)

<http://ncptt.nps.gov/2010/ncptt-training-video-lifting-and-hoisting-stone-grave-markers/>

Resetting a Stone Grave Marker (2007)

<http://ncptt.nps.gov/2008/resetting-a-stone-grave-marker-2007-02/>

While on site, you also asked about restoration of the eroded and damaged lettering on the monument. This, too, can be restored. Missing parts of letters would be shaped and built up on the surface of the stone by applying a color-matched mortar. The use of lime mortar applied directly to the surface will insure good adhesion to the stone and optimal compatibility of porosity between the original stone and the restoration mortar. Also, lime mortar can be easily reversible from the stone if it is properly formulated to be slightly softer than the original stone to which it is adhered.

As we discussed, I am in the process of putting together a general estimate of the time and cost for this project. If necessary, I am happy to refer you to other skilled conservators in Texas who can also provide options and estimates on this work.

Please feel free to contact me if you have questions or if I can be of additional assistance in the meantime.

Many thanks!



Catherine Williams

SILVER LINING ART CONSERVATION, LLC

CATHERINE L. WILLIAMS

OBJECTS CONSERVATOR

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512.695.3260

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February 17, 2012

Kim McKnight
 Historic Preservation Specialist
 City of Austin Parks and Recreation Department

Dear Kim,

Glad to hear you are still considering restoration of the original Mt. Bonnell Monument. In response to the questions you posed to me by email:

Q: Are there any treatments/applications/sealants that one can use to delay weathering/erosion?

The Short Answer:

Yes - sealants exist, but no - they either don't work for the long term (50+ years) or haven't been field tested long enough yet for me to feel comfortable to recommend.

The best and only guaranteed long-term way to slow weathering from outdoor exposure is to provide a cover over the stone.

The Long Answer:

Most of the stone treatments that have been used to seal or weatherproof various types of stone can keep it looking great outdoors for 15 - 20 years, some manufacturers claim longer. However, in reality, many of those products actually accelerate weathering after the initial few years. This accelerated deterioration can occur for a variety and combination of reasons, one of the most common is because the sealants frequently don't have the same rates of moisture permeability as the stone, which causes moisture and salt buildup over time, resulting in stress cracking, and spalling of the stone. A common example of what happens after several (maybe 10 - 20 years) is that stress cracking will form within the stone along the boundary line between the maximum depth of penetration of the sealant and the unsealed stone (about 1/2" deep). Eventually, the entire surface of the stone where the sealant has been applied will fall off, exposing unsealed stone surface.

On the other hand, there is a new type of product, actually a whole new class of chemicals called siloxanes, that have been developed in the last 10 years or so that look much more promising. The downside of these is that they are relatively new and, thus, are not time tested in real field trials, so we really don't know what the actual effect of these is beyond about 10 or 15 years. However, aging tests of these new chemicals in simulated outdoor environments have had very good results. They are getting more widely used in historic preservation situations where deterioration is severe and complete loss is imminent within a generation. Examples of this imminent loss would be when the stone is falling apart, crumbling or eroding (like sandstone tends to do) and there are no other options. But for normal, stable stone in a regular outdoor environment they are still a big unknown in regard to long term (50+ years).

Q: Should the monument be replaced with a replica, what type of stone or material would be appropriate as a replica, but also stand up to weathering and erosion? Is there a particular type of finish?

This also doesn't have a straightforward answer, and I would refer you to Matt Johnson, professional stone carver, to answer this and give you estimates if you plan to pursue this option.

SILVER LINING ART CONSERVATION, LLC

CATHERINE L. WILLIAMS

OBJECTS CONSERVATOR

MT. BONNELL MONUMENT

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I do have some input on the replica option, of course:

A facsimile, which is an exact copy using the same materials as used in the original, would have to consist of the same stone - limestone. There may be some types of limestone that are more durable than the original. Durability may also be increased by taking advantage of physical qualities of the stone – modifying things like smoothness (to reduce water collection), shape (to improve runoff), or adjusting the position (to protect a less durable grain direction). Matt Johnson, or another professional stone carver would be able to advise on this.

A replica would be a copy that is very similar in shape and appearance to the original but not necessarily made of the same material. This could be of limestone, or another type of stone, and again, I'd refer you to Matt for stone options. The primary drivers of decision-making on choosing a stone type for a replica for me would be making sure the aesthetic and historical qualities significant to the original monument are also present in the new stone. For example, while travertine may be more durable than limestone, and may look similar to limestone, I would not consider it appropriate since it is not quarried locally.

If a type of stone significantly different in appearance than limestone is chosen, then I'd call it a "replacement".¹ This would be essentially a brand new monument, commemorating the presence of the previous monument, rather than a commemoration of the original event. A comparable situation would be a historic marker placed to mark the location of a cemetery as opposed to a cemetery grave marker placed to mark the life of a person. For this situation, in my opinion, marble or granite or basalt would fall into in this category since they are significantly different than limestone.

Another option would be to create a replica of the monument by taking a mold of the original and casting it in "cast stone" which is actually concrete. This kind of replica would be identical to the original stone in shape, grain, and color, but would be much more durable (i.e. cement + aggregates are less susceptible to weathering than limestone). Plus, the original could be truly preserved somewhere indoors, and you'd have a mold of the original for all time in case you needed to replicate it again in the future. In my opinion, this option is far better than a marble or granite replacement, because the result would be much more aesthetically similar with the original, and no additional historical information added since cement is a manufactured product. As far as getting this done: Blue Genie Art Services would likely be able to do this for you, as they often work with Eric Billig, a master of cement. The Blue Genies are fantastic moldmakers, are not daunted by unusual requests, and like to do Austin history related projects. They even have experience with this kind of thing - I know in the past they have taken molds of limestone rocks on the Greenbelt and made replicas.

Another, "outside the box" option, would be to modify the original stone to increase durability. This might be re-carving, setting the original into a more durable stone - Matt can advise on this. This idea makes me cringe, since the original would be irreversibly changed, and, if not carefully considered, could cause exponentially more problems in the long term, but I thought I'd throw it out there.

Anyway, good luck on the continued discussion, and let me know if you have more questions.

Best,



¹ Sorry for the semantic corrections, but the particular word choices here are important and very relevant in the world of historic artifacts and monuments.

CATHERINE L. WILLIAMS

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PROFESSIONAL EXPERIENCE**Silver Lining Art Conservation, LLC** Austin, TX*Objects Conservator and Owner*

January 2005 – present

- conserve, preserve, and restore three-dimensional objects including fine and contemporary art, natural science artifacts, outdoor sculpture, historical and archaeological artifacts
- consult with living artists, artists' estates, and curators to develop appropriate conservation treatments
- survey entire collections to assess conservation needs and environmental conditions
- teach staff, students, and volunteers seminars on outdoor sculpture maintenance, condition reporting, and collections care for Austin Art in Public Places, Landmarks: University of Texas Public Art, UT Historic Preservation Graduate School
- collaborate with artists and fabricators to troubleshoot and improve public art proposals for Austin Art in Public Places
- maintain sculpture collections for the Metropolitan Museum of Art (on the University of Texas campus), University of Texas, Art in Public Places, and private collections
- experience working with a wide variety of materials including: leather, basketry, lacquer, wood, gilded objects, metals, glass, stone, ceramics, ivory, bone, wax, plastic, rubber, foodstuffs, and other materials

Clients include:

The Menil Collection	LBJ Library and Museum	Austin Museum of Art
The Blanton Museum of Art	US Army Medical Museum, Ft. Sam Houston	San Angelo Museum of Fine Art
Austin Art in Public Places	The National Museum of the Pacific War	The Brooklyn Museum of Art
Houston Art Alliance	Houston Museum of Natural Science	San Antonio Museum of Art
Landmarks: University of Texas Public Art Program	Texas Friends of the Governor's Mansion	

Harvard University Art Museum: Archaeological Exploration of Sardis, Sardis, Turkey*Special Projects Conservator*

summers 2010 – present

- stabilize and maintain excavated architecture and mosaics (Temple of Artemis, c. 300 BC and Synagogue, c. 400 AD)
- direct skilled Turkish workmen on stabilization and maintenance projects
- supervise graduate school interns on conservation treatment of excavated objects

Wall Paintings Specialist

summer 2007

- stabilized and conserved Roman wall paintings in architecture and tombs (c. 400 AD)
- treated excavated artifacts in the lab, including ceramics, coins, metals, glass, stone, and bone

Winterthur/University of Delaware Gulf Coast Hurricane Katrina Recovery Project, Jackson, MS*On-site Coordinating Conservator*

January – December 2006

- coordinated recovery for damaged collections from two museums: surveyed artifacts, set conservation priorities, performed stabilization treatments, built crates, packed artifacts for shipment, rehoused, and moved entire collections
- trained, supervised, and managed 20 students, including 11 summer interns during a 12 week period
- organized projects for 20 visiting specialist conservators to work on-site during the course of the year
- arranged all on-site logistics: found housing for interns, set up work space for 12 people, ordered supplies, arranged artifact shipments, acted as liaison between Winterthur/University of Delaware and Gulf Coast museums
- created custom collections care manuals, treatment documentation, and summary reports for both collections

Heritage Emergency Assistance Recovery Team (post-Hurricane Katrina), New Orleans and Southern Louisiana*Collections Salvage Recovery Specialist and Navigator*

September 2005

- salvaged damaged artifacts, trained staff on-site in salvage techniques and personal safety in post-disaster environment
- wrote damage assessments for institutions to obtain federal funding
- provided institutions and collectors with immediate, short, and long-term recommendations and resources

National Museum of American History, Smithsonian Institution, Washington, DC*Objects Conservator*

September 2000 – April 2004

- treated a wide variety of artifacts for four permanent exhibits, eight temporary exhibits and numerous loan objects
- surveyed over 400 artifacts for loans, set requirements for packing, travel, exhibition, mounting, and storage
- created a database to organize documentation for three conservation labs, improving recordkeeping, planning, and budgeting

Exhibits included:

The American Presidency: A Glorious Burden	America on the Move: The History of Transportation in America
September 11: Bearing Witness to History	West Point in the Making of America
Bon Appetit! Julia Child's Kitchen	Within These Walls: 350 years of History in Ipswich, MA

CATHERINE L. WILLIAMS

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PROFESSIONAL EDUCATION

The Modular Cleaning Program: A Systematic Methodology for Cleaning Artifacts (1-day abbreviated version)	April 2011
<i>Instructor:</i> Chris Stavroudis, Paintings Conservator, Private Practice, Los Angeles, CA	
Private Consultation on Outdoor Sculpture , J. Paul Getty Museum	August 2009
<i>Consultants:</i> Katrina Posner, Outdoor Sculpture Conservator, J. Paul Getty Museum Julie Wolfe, Object Conservator, J. Paul Getty Museum	
Conservation of Glass , International Academic Projects	May 2008
<i>Instructor:</i> Steve Koob, Senior Conservator, Corning Museum of Glass	
Conservation of Plastics and Rubber , American Institute for Conservation	May 2008
<i>Instructors:</i> Dr. Thea vanOosten, Senior Researcher, Netherlands Institute for Cultural Heritage Dr. Yvonne Shashoa, Senior Researcher, National Museum of Denmark	
Digital Photography for Conservators , American Institute for Conservation	February 2008
<i>Instructor:</i> Yosi R-Poseilov, Conservation Photographer, Los Angeles County Museum of Art	
Establishing a Private Practice , American Institute for Conservation	May 2005
<i>Instructor:</i> Dr. Sarah Lowengard, Conservator in Private Practice	
MS104: Museum Preservation , Northern States Conservation Center	May 2004
<i>Instructor:</i> Helen Alten, Conservator, Northern States Conservation Center	

EDUCATION

Buffalo State College , MA: Art Conservation, Specialization in Objects	May 2001
Florida State University , BA: Chemistry	May 1994
Florida State University , BA: Art History	May 1992

INTERNSHIPS

Poggio Colla: SMU field school and Etruscan excavation , Objects Lab, Vicchio, Italy	June – August 2000
Philadelphia Museum of Art , Conservation Science & Objects Conservation Labs, Philadelphia, PA	June – August 1999
Michael C. Carlos Museum, Emory University , Objects Lab, Atlanta GA	August 1997 – August 1998
High Museum of Art Regional Conservation Center , Paintings & Textiles Lab, Atlanta, GA	Sept 1996 – August 1998

PROFESSIONAL AFFILIATIONS

American Institute for Conservation (AIC) , Professional Associate	2005 - present
Member	1993 - 2005
International Network for the Conservation of Contemporary Art (INCCA) , Member	2009 - present
Washington Conservation Guild (WCG) , Member	2000 – 2004

March 6, 2012

Dear Ms. Kim McKnight,
Following please find my thoughts regarding the questions you asked.

Q: Are there any treatments/applications/sealants that one can use to delay weathering/erosion on the existing stone or a new stone?

There are some products on the market, which claim to be capable of restoring or strengthening existing stone and slowing or halting erosion. If such a product were to be used, however, it is essential that its absorption capacity and porosity are very similar to the stone. The danger is that it may not let the stone "breathe" (i.e. release moisture). If the sealer or hardener traps water behind it then eventually the pressure will cause the entire face of the stone to flake or spall off. With that said, Fran Gale has much more experience with these products and their applicability, and I would defer to her judgment on the matter.

It is inevitable that limestone left outside will weather over time, regardless of whether you seal it or not. However there are plenty of examples of limestone buildings around Austin that have withstood the test of time. With carefully chosen limestone, polished and crafted professionally, and the absence of vandalism, a limestone monument can easily expect to be around for 70 to 100 years if not more.

Q: Should the monument be replaced with a replica, what type of stone or material would be appropriate as a replica, but also stand up to weathering and erosion? Is there a particular type of finish?

The monument appears to be made out of a local limestone very similar to the Cordova Cream Limestone quarried in the Liberty Hill area. As I mentioned previously, Cordova Cream (or any type of limestone) will inevitably show age with time, but there are steps that can be taken to extend its life. The most important step is to carefully choose any replacement material - selecting for density and tightness of grain and avoiding inclusions or cavities of any kind.

Additionally, polishing the stone to a 120grit finish and humoring (rounding) the edges will help slow down the weathering process.

Replicating the previous monument is possible, but depending on the degree of replication, may not be particularly feasible. For example, if it is decided to recreate an exact copy of the former monument the piece would basically have to be sculpted through and through. This seems impractical since a lot of the original monument was rough stone. The idea of carefully sculpting a piece so that it would exactly resemble rough stone seems a little odd.

I haven't looked at the salvaged materials, but Catherine Williams has told me that it is possible to restore the monument with a small amount of new material added and re-carved. If the materials are all in hand this is a good option, but if there are a lot of missing pieces or if there are hundreds of small pieces, reconstructing the monument could be almost as time consuming and tedious as sculpting a replica.

The easiest (though certainly not the most historically sensitive) approach would be to scrap the original, redesign the monument, and build it with new materials. This is not a desirable option. I mention it simply in an effort to be thorough.

An fourth option you and I discussed on the phone was to take the large pieces of the original monument and put them back together, then cut back the area that contains the original lettering for the project and use a new piece of limestone to re carve the verbiage of the monument. This has some advantages. It takes the original monument and incorporates it into the design. In fact the design is not fundamentally different from the original. The quality of the stone that replaces the area of the lettering could be chosen carefully so as to prolong the life of the monument. The restoration of the original monument could be made less painstaking.

I hope these responses are helpful. Please feel free to contact me if you have further questions or require additional information.

Respectfully,
Matthew Johnson



THE UNIVERSITY OF TEXAS AT AUSTIN
SCHOOL OF ARCHITECTURE

February 10, 2012

Kim McKnight
Historic Preservation Specialist
Parks and Recreation Department
Austin, TX

Re: Mount Bonnell stone marker

Dear Kim:

Thanks for providing information about the Mount Bonnell stone marker. The site is spectacular and I enjoyed learning about the circa 1938-1940 stone marker. That said, the recent vandalism affecting the marker is unfortunate and, sadly, the existing damage is severe. Obviously, it is not possible to return the marker to pristine condition; however, I believe that careful repair work can restore its integrity and appearance.

The large losses on the south side of the stone marker are the most noticeable problem. During my brief inspection, I noticed several other conditions, including surface erosion, small cracks and old repair work. In addition to general soiling, staining includes reddish discoloration, dark streaking and graffiti. Also, I understand that there is some concern that the marker is no longer in a vertical position. Fortunately, it looks as though the stone "buttress" on the west side of the marker has resolved this issue.

Regarding the losses, I'm glad to know that PARD is storing the stone fragments in an off-site location. Although it appears that the breaks were clean, I expect that structural "fills" will be needed for loss compensation.

As we discussed, I believe that an objects conservator or stone mason with experience in monument restoration can carry out the needed repair work on the Mount Bonnell stone marker. The work would include –

- Transporting the large stone fragments back to the site
- Cleaning the marker to remove general soiling and staining
- Adhesive repair to reattach the fragments (stainless steel pins may be required for this step)
- "Plastic" repair with cementitious patching for loss compensation

Given the existing small cracks and surface erosion, the conservator or stone mason may want to evaluate a conservation treatment to protect the marker from future deterioration. As you know, these treatments are sometimes problematic and, in most cases, are not recommended for historic masonry materials. However, the existing conditions of the Mount Bonnell marker may warrant their use.

Page 2, Mount Bonnell stone marker

There are several clear, penetrating treatments that provide protection against water-related deterioration without adverse effects to the substrate. These include ethyl silicate and silane treatments that are modified for use on calcareous substrates such as limestone. Examples include Sure Klean® Weather Seal H40 manufactured by Prosoco, Inc. and Chem-Trete BSM 40D, manufactured by Degussa. Penetrating fluoropolymer treatments such as R97 Water Repellent, manufactured by Cathedral Stone Products may also be worth investigating.

To evaluate effectiveness of protective treatments and to rule out adverse effects, laboratory and/or field testing is recommended. With any of the above treatments, maintaining water vapor permeability of the substrate is an important consideration.

As you know, I'm glad to recommend local conservators and masons who could tackle this project. In my view, replacing the original marker with a replica is a much less attractive option. However, if PARD decides to pursue this option, I recommend in-kind replacement with a replica of local limestone. If replacement is the preferred option, the conservator or masonry specialist involved with the project could carry out archival research and laboratory testing to determine an appropriate (and available) local limestone. Obviously, his or her recommendation would be subject to PARD's approval.

I hope that the above information is helpful. Please contact me with questions or to discuss the project further.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Frances'.

Frances Gale
Senior Lecturer and Research Scientist
Historic Preservation Program

ASH MASONRY MASTERWORKS
Preservation • Restoration • New Construction

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San Marcos Texas 78666

Ph. 210-488-8849
Fax 512-590-8687

Kim McKnight, MSHP
Planning and Development
Parks and Recreation Department
City of Austin

Kim,

The stone monument atop Mount Bonnell can be restored. The restoration process will involve setting up a scaffold over the stone and using a beam and chain hoist with straps to carefully lower each of the large broken pieces back into their original position. Stainless steel dowels will be installed in the large existing stone using epoxy to set them permanently. After the epoxy has set, (cured and dried) around the stainless steel dowels on the large existing stone, each large broken piece will be re-attached slowly and carefully, mounting them on the stainless steel dowels. After the large pieces have been successfully attached, the smaller pieces will be reattached using epoxy. Where pieces are missing, a special material developed in Europe to patch and repair historical cathedrals called Jahn, will be sculpted to match the existing texture and shape of the stone. The entire process should take about week to complete. The stone restoration will be strong and durable, even withstanding someone climbing or jumping off of it.

You had also requested a recommendation for a new monument. Ash Masonry has three stone carvers available and we suggest you use a cordova cream limestone slab native to the Austin area. Cordova cream is the most beautiful native limestone and carves well. Because Mt. Bonnell is to a large degree made up of limestone, I believe this type of stone is a logical choice. If you are interested in pursuing this direction the Parks Department or your team can design a new monument, or we will design one and work up an estimate for you.

Please don't hesitate to call me if you have any questions or concerns.

Thank you,

Brian A. Ash

ASH MASONRY MASTERWORKS, INC.

Owner, Brian A. Ash, Master Stone Mason - since 1978
210-488-8849 (direct) BrianAAsh@Gmail.com
www.AshMasonryMasterworks.com

Current Projects:

River View Towers, Jim Filipowicz & Associates, San Antonio TX
Pease Park Restoration, City of Austin, Austin TX
Claretian Founding House, Tollette Construction, San Antonio TX
Neill-Cochran House Museum, Texas Historical Commission, Austin TX
The Old Gethsemane Lutheran Church, Texas Historical Commission Library Phase II, Austin TX

2011 Projects:

Kress Building, Turner Construction, San Antonio TX (Best Commercial Real Estate Award)
Carrington Covert House, Texas Historical Commission, Austin TX
Holy Cross Church Tower Reconstruction, Yorktown TX
Sunset Ridge Church of Christ Phase II, San Antonio TX

2010 Projects:

Luther Hall, Texas Historical Commission Headquarters, Austin TX
The Old Gethsemane Lutheran Church, Texas Historical Commission Library Phase I, Austin TX
Austin Women's Club, Austin TX
Holy Cross Church, Yorktown TX
University United Methodist Church, Austin TX (Assoc. of General Contractors Award)

2009 Projects:

Mills County Courthouse, Goldthwaite TX
The Trevino-Urbe Fort National Historical Monument, San Ygnacio TX
Kenedy County Courthouse, Sarita TX
The Tower Life Building Phase III Restoration, San Antonio TX
Eanes Independent School District, Westlake High School, Cedar Creek Elementary
Westridge Middle School, Hill Country Middle School, Austin TX
Warren, Drugan & Barrows Law Offices, San Antonio TX

2008 Projects:

Sunset Ridge Church of Christ Phase I, San Antonio TX

2007 Projects:

* Williamson County Courthouse, Georgetown
* Tower Life Building Phase II Restoration, San Antonio TX

2006 Projects:

* Drury Alamo Hotel, San Antonio TX
Riverwalk Extension, San Antonio TX
Aztec Theatre Project, San Antonio TX

2005 Projects:

The Clifford Building – Riverwalk, San Antonio TX
Landry's Restaurants, Rain Forest Café – Riverwalk, San Antonio TX
IBC Bank Plaza, San Antonio, TX
* Texas Theater Restoration, A T & T Global Headquarters, San Antonio TX

2004 Projects:

Kress Building – Exploratory Terra Cotta Removal, San Antonio TX
 Val Verde County Courthouse, Phoenix 1 Restoration & Construction, Ltd., Del Rio TX
 Donley County Courthouse, Phoenix 1 Restoration & Construction, Ltd., Clarendon, TX

2003 Projects:

* U-Drop Inn on Route 66, Phoenix 1 Restoration & Construction, Ltd., Shamrock, TX
 * Gray County Courthouse, Phoenix 1 Restoration & Construction, Ltd., Pampa, TX
 Texas A&M Univ. Eller O&M Building, Phoenix 1 Restoration & Construction, Ltd., College Station TX
 Magnolia Lounge, Fair Park, Phoenix 1 Restoration & Construction, Ltd., Dallas TX
 San Jacinto Monument, Phoenix 1 Restoration & Construction, Ltd., La Porte TX

2000-2002 Projects:

Llano County Courthouse, Phoenix 1 Restoration & Construction, Ltd., Llano TX* Cameron County
 Courthouse, The Dancy Building, Brownsville TX
 Discovery Channel Corporate Retreat, Gateway Construction, Gateway CO
 * Tower Life Building Phase I Restoration, San Antonio TX

1999 Projects:

South Texas Building, San Antonio TX
 The Inverness, San Antonio TX
 * Drury Inn Riverwalk, San Antonio TX
 The Witte Building, San Antonio TX
 St. Joseph's Cathedral, San Antonio TX
 Historical Building, Downtown Clinic –University Hospital, San Antonio TX

Pre 1999 Projects:

World Savings Building, San Antonio TX
 Brooks Brothers Department Store, New Orleans LA
 Union Stockyards Warehouse, H.B. Zachry Company, San Antonio TX
 Curry Creek Ranch House - H.B. and Molly Zachry Private Residence. H.B. Zachry Company, Ford
 Carson Powell, Architects, Kendalia TX
 * The Texas Theater, AT&T Global Headquarters, San Antonio TX
 * Tower Life Building, San Antonio, TX 1995

*** *Projects involving Terra Cotta replacement or restoration.***

Texas Historical Commission	Quana Childs, Architect	512-463-9122
Texas Historical Commission	Sharon Fleming, A. I. A.	512-463-6268
Texas Historical Commission	Amy Lambert, Preservation Consultant	512-463-6100
Texas Historical Commission	Lyman Labry, Preservation Consultant	512-305-9109
Tower Life Building	Teeta Ansley, Property Manager	210-554-4517
Texas Theatre	Marcie Meloni, Property Manager	210-227-4222
Drury Inn Riverwalk Hotel	David Grojean, Project Manager	210-286-6860
Discovery Channel Corp. Retreat	John Bratton, General Contractor	970-931-2810
Volz & Associates	Teresa O'Connell, Architect	512-476-0433
Volz & Associates	Chris Hudson, Architect	512-476-0433
Braun & Butler	Kenton Heinze	512-837-2882
Braun & Butler	Colin Juren	512-837-2882
Sparks Engineering	Pat Sparks, Engineer	512-310-7727
Holy Cross Church of Yorktown	Father Roger Hawes	361-564-2893
Warren, Drugan & Barrows	Sam Drugan, Attorney	210-226-4131

Austin Stone Carving

Project Assessment

Date: 2-19-2012

Option #1: Restoration of Original Monument

Material

The original natural Limestone boulder was most likely found on or near Mt. Bonnell.

Current Status

As of now, half of the existing monument is still embedded on its original place on top of Mt. Bonnell and the remaining fragments have been saved and are being stored at a safe location in Austin.

Austin Stone Carving's Assessment

After inspecting the remaining broken fragments, it is our assessment that the monument can be repaired. Although the piece will still show signs that it was broken into several pieces, it has the potential to look very similar to how it did prior to the vandalism.

Our Steps for Restoring the Monument

1. Carefully take the broken fragments to the Austin Stone Carving Studio.
2. Study the broken fragments and come up with a methodical plan to piece them together.
3. Gently clean the fragments with an appropriate cleaning solution that in line with preservation standards.
3. Label the broken fragments and use photographs to ensure that pieces are being put back together in a thoughtful and practical manner.
4. The remaining fragments will be glued back together with Bonstone brand stone epoxy. Bonstone makes a two part epoxy custom made for Cordova Cream Texas Limestone which is very similar to the limestone that Mt. Bonnell is made out of.
5. For the larger pieces, corresponding holes will be drilled in strategic places so that stainless steel pins with epoxy can be used in the strengthening of the repair work.
6. Once the pieces are glued back together, the fractured lines will be filled with a patching material that is made with crushed limestone from the same type of stone from the area, portland cement, and lime. For any sections where patching is not appropriate because the area that is missing stone is too large to fill with patch, then a dutchman will be applied.
7. The completed work will then be taken back to the job site to be installed and reattached to the existing piece on site. The monument will most likely have to be reset into a fresh mortar bed, but we may be limited to how much deconstruction we can do to the monument.

8. It is also suggested that sealants not be used on the monument because these chemicals can affect the stone's longevity. Even though they might preserve the stone's appearance for a few years, many times these chemicals can trap sediment and moisture underneath the sealer and can have a reverse effect. It can also be a problem if there is ever a need to do repair work on the stone. Sometimes a sealer can prevent a patch to take to a stone properly, and the pieces will age differently in those areas.

9. For any light soiling, we suggest cleaning the monument every few years with environmentally safe chemicals made especially for natural limestone. "Cathedral Stone" has a few products on the market that do a great job that can simply be sprayed onto the stone and washed off with a little water and they do not harm vegetation.

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Anticipated Installation Challenges

In order to do a proper restoration of the monument, the broken pieces have to be carefully reassembled in multiple phases in a controlled environment. In our opinion, this is something that should not be attempted on site. The ideal situation would be to glue the section that is constructed of all of the broken pieces and then attach this whole side in one controlled installation movement to the other broken half of the monument that has remained on site.

In order to do this, a crane or an appropriate lifting device will have to be used to safely lower the other half of the monument into place.

It is my estimate that the remaining half of stone that has to be installed on top of the mountain weighs between 1,000 and 1,500 lbs.

It is my understanding that there is a small road that can be taken to the top of the hill for maintenance purposes, but it is unclear if a truck with a small lifting device can be used on this road. If it is simply impossible or forbidden to get a larger vehicle up the hill, then the only other option will be to have several men carry it up manually.

These are things that can be discussed with the city of Austin; we can find a way to make it work within the limitations of the job site.

Option #2 : Fabricate a New Mt. Bonnell Memorial

Material

Cordova Cream Texas Limestone

Austin Stone Carvings Intent

It is of our opinion that if a new monument is to be constructed for Mt. Bonnell that it should be made in the same spirit and style as the original. The only major difference will be that it is carved out of a more quality limestone that is properly quarried out of the ground. The reason why the original stone was probably carved on a boulder found on the job site, was because it most likely the easiest way to make a marker. They used what was readily available.

Advantages for using local Limestone Verses Granite

One of the best qualities of using limestone for a monument is that there are so many things that you can do manipulate the surface.

1. With limestone, lettering can be done in a way that does not require the surface to be cut flat. The letters can be carved with chisels.
2. Granite has many limitations, typically the lettering has to be done by sandblasting. In order to sandblast properly, the surface has to be relatively flat so that the masking template can be applied to the surface.
3. For this project, we would find a block of limestone at a nearby quarry that either already has a nice shape to it where it has a natural rough back, or it can be shaped and textured in a way where it appears like a natural boulder.
4. Limestone tends to have a more inviting and warmer quality where as granite has a colder and more stoic appearance that can come off looking more like a grave marker.
5. Our vision is to sculpt a monument that mimics a similar layout of the lettering as the original. The texture would be carved in a way that it would be a little "wavy" and slightly uneven then smoothed with sanding it by hand. Then the lettering would be hand drawn with a pencil onto the limestone and carved with chisels, giving it a human touch which would make it very appealing.
6. It might be a good idea to clear off the new site and pour a small concrete slab and then set the new monument on top using stainless steel pins and epoxy. It can also be taken a step further by adding a cut limestone base between the concrete slab and the new monument for a more formal appearance.

About the Austin Stone Carving

Owned and operated by artist Stuart Simpson since 1997, Austin Stone Carving is known for its quality workmanship and professional work ethics. Simpson began his formal art training at age 11 and six years later began studying with Mary Paige Huey, former student of sculptor, Charles Umlauf, at the Laguna Gloria Art Museum in Austin, Texas. Stuart obtained a Bachelor of Fine Arts degree at Southwest Texas State University in San Marcos, Texas, in 1996.

Stuart has studied world-renowned architectural wonders and stone sculptures in countries like Cambodia, home to the infamous Angkor Watt ancient temples, Florence, Italy, to view the many great cathedrals and sculptures; Prague, Czech-Republic; and Germany.

A 6th generation Austinite, Stuart has a deep connection and love of Austin, Texas. Ironically, his early interest in carving stone started when he was a young boy when he would carve out fossils in the limestone cliffs surrounding in his neighborhood adjacent to Mt. Bonnell.

Affiliations

Treasurer for the Stone Carvers Guild, 2007-present
Stone Carvers Guild Board of Directors, 2008-present

Recently Commissioned Projects

Some of Stuart's commissioned projects for 2012 include a monumental water feature for the interior atrium for Saint David's Medical Center and Cactus Pryor's memorial for the Texas State cemetery in Austin.

Examples of his work can be found at his company website, www.austinstonecarving.com

Contact information:

Stuart Simpson
Austin Stone Carving
Owner
3829 Campfire Drive
Cedar Park, TX 78613
(512) 970-1802
Stuart@AustinStoneCarving.com



Mt. Bonnell Monument

April 22, 2013 Historic Landmark Commission

Prepared by Parks and Recreation Department:

Reynaldo Hernandez Jr., RLA

Kim McKnight, MSHP



History of Mt. Bonnell at Covert Park



- Property donated to Travis County in 1938 by Covert Family
- Maintained by Travis County
- City of Austin acquires property, 1972
- Trellis and hardscape improvements installed, 1983
- Designated as City of Austin Historic Landmark, 1990





Fig. 8: Bird's-eye view of Mount Bonnell at Covert Park.



Photograph of Original 'Marker' circa late 1930's





Current Conditions





Additional deterioration
of monument





The photo on the left shows the fragments that are in storage. The photo to the right shows the monument prior to 2013. Since this photo was taken, a small triangular piece of the monument has become dislodged and is no longer in storage. The photo above shows the monument today with the triangular piece missing. The photo on the following page shows the monument prior to damage.





To give you an example of conservation techniques that would be used, here are two videos from the National Center for Preservation Technology and Training (NCPTT):

Lifting and Hoisting Stone Grave Markers (2011)

<http://ncptt.nps.gov/2010/ncptt-training-video-lifting-and-hoisting-stone-grave-markers/>

Resetting a Stone Grave Marker (2007)

<http://ncptt.nps.gov/2008/resetting-a-stone-grave-marker-2007-02/>



Perspective view with proposed changes

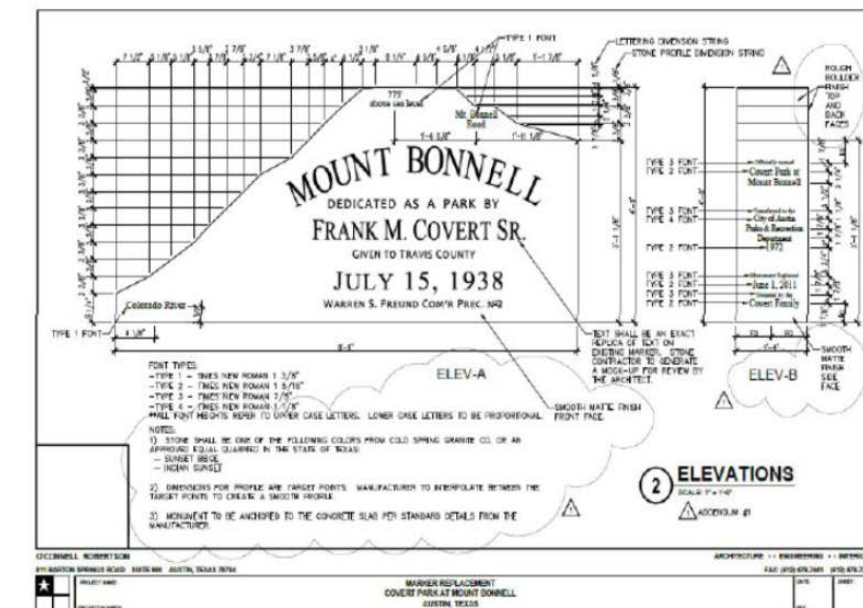




Proposed plan view of improvements



Proposed Monument Replacement





West Point Society of Central Texas Key Points

- “Land was gifted as a park to be used specifically for that purpose and not to preserve any history”
- “The 1990 decision to designate Mount Bonnell as a city historic landmark was based primarily on its great views and its many visitors, not for any structures or specific historic events”
- “All past and proposed improvements to the landscape have been for one purpose only—to enhance the experience for the park's many visitors, in keeping with the donor's original intent”



West Point Society of Central Texas Key Points

- “The Covert family gifted the limestone monument along with the land. They are deeply upset that the monument was allowed to completely deteriorate, do not want the remnants, will not financially support its restoration, but are eager to fund a more permanent granite replica to be sited in the place of prominence. That funding is essential to acquiring the grant for the proposed landscape improvements”
- “Restoring the monument and placing it in a protected environment, possibly in a cairn elsewhere on site, is not inconsistent with accepted preservation practices and will preclude a repeat of the deterioration of the last 70 years”





Recommendations Sought:

- A: Recommendation to restore existing monument
- B: Recommendation to replace existing Monument with new marker as proposed by the West Point Society of Central Texas

