

# The Resurrection of St. Augustine

The story of a hundred-year fix

Ca. 1880



Ca. 1920



1936



1950



The mission St. Augustine at Isleta Pueblo, NM was built in 1613 and has, over the centuries, undergone many modifications. This image shows the building as it appeared in 2005, as the Pueblo began its drive to restore the historic church. In 2010 Crocker Ltd was selected as the contractor and Neil Carter Associates was the project manager.



Instructions regarding the restoration from the pueblo were:

“We are used to it the way it looks now. When you leave, we want it to be strong, but we want it to look like it did on the day you arrived.” Gov. Frank Lujan, Chair of the Restoration Committee.

The building was documented (using highly visible aids) even as selective demolition began.



A 1959 remodeling campaign left the building tightly encased in Portland cement, including plasters that in places were seven inches thick. The belfries were constructed of concrete masonry blocks. The first job was to remove the non-permeable and inappropriate materials. As illustrated here, vast areas of damage were discovered, as were many surprises.



Among the more disturbing revelations was that some of the major features of the building had been “restored” in 1959 using wood frame construction. Coupled with the impermeable plaster, the damage to both the wood and adobe was extreme. This is the north side of the east buttress, where free water was found in the voids.



Among the 1959 interventions was the installation of a massive concrete *contrapared*, or gradebeam, that in places extended more than two and half feet below grade. The only safe way to remove the concrete was to saw it into manageable sections.



Once cut, the pieces were removed in alternating sections and the holes filled with engineered fill compacted to >95%.



More than 375 tons of concrete were removed from the church.



With the cement disguise removed, many architectural features were exposed. The near vertical line on the left indicates the edge of one of two trapezoidal buttresses from one of the church's many reconfigurations (photo *ca.* 1920). On the right can be seen the last vestige of the adobe arches that comprised a two story arcade (photo *ca.* 1880).



Once the *contrapared* had been removed, the engineered fill was excavated down to the wall base. There we discovered a narrow adobe plinth, indicated here, that marked the junction between the basalt-in-mud footing and the adobe walls. Restoration of the walls began at that point. Note the level of moisture damage to the walls that were behind the concrete.



Once the basal wall repairs were complete, an active drainage system was installed. Here a continuously slotted PVC pipe has been laid on the original plinth and graded to drain.



With the pipe in place, MiraDrain 6000 was inserted into the slot and tacked temporarily to the wall.



A “sausage” of rounded river rock was made by wrapping the gravel in a geotextile, backfilling, compacting and grading. The active drains discharge into drywells, if needed.



The original adobe and *terron* was left in place and incorporated in the restoration as much as possible. This is a view of the SE corner of the building where a *convento* was once attached.



The Isleta adobes were roughly 10 x 23 x 2-1/4" and are exceptionally durable; many were salvaged and re-used. The *terrones*, on the other hand, were weak to begin with and many had to be replaced.



An ancient message from *Tiguex caninensis*.



While demolition of the concrete sheathing continued, restoration began in select areas. Here the footing is being laid for the SW buttress.



Here, the first courses of adobe are being laid for the interior mass of the SW buttress. The west parapet was nearing completion.



Another unsettling discovery was that the core building had been built during two campaigns. The outside wythe was first and either failed or was expected to. An additional inner wythe, essentially a veneer, was installed. The walls were independent of each other and basically free-standing. Our solution was to retrofit wall ties using treated wood where possible, and steel through-bolts where necessary.



Where sections of walls had to be removed because of instability, “ladder belts” (as seen here) were used to tie the wythes of the wall together and to reinforce the corners. All joints were loosely lapped and drilled and a pin dropped in to allow for expected movement.



The south facade after stabilization and a mud leveling coat on the upper walls. Note the beam over the choir window. It appears in the first known photo of the mission, *ca.* 1867. As one of the earliest visible features, it was stabilized and replaced in its asymmetric location.



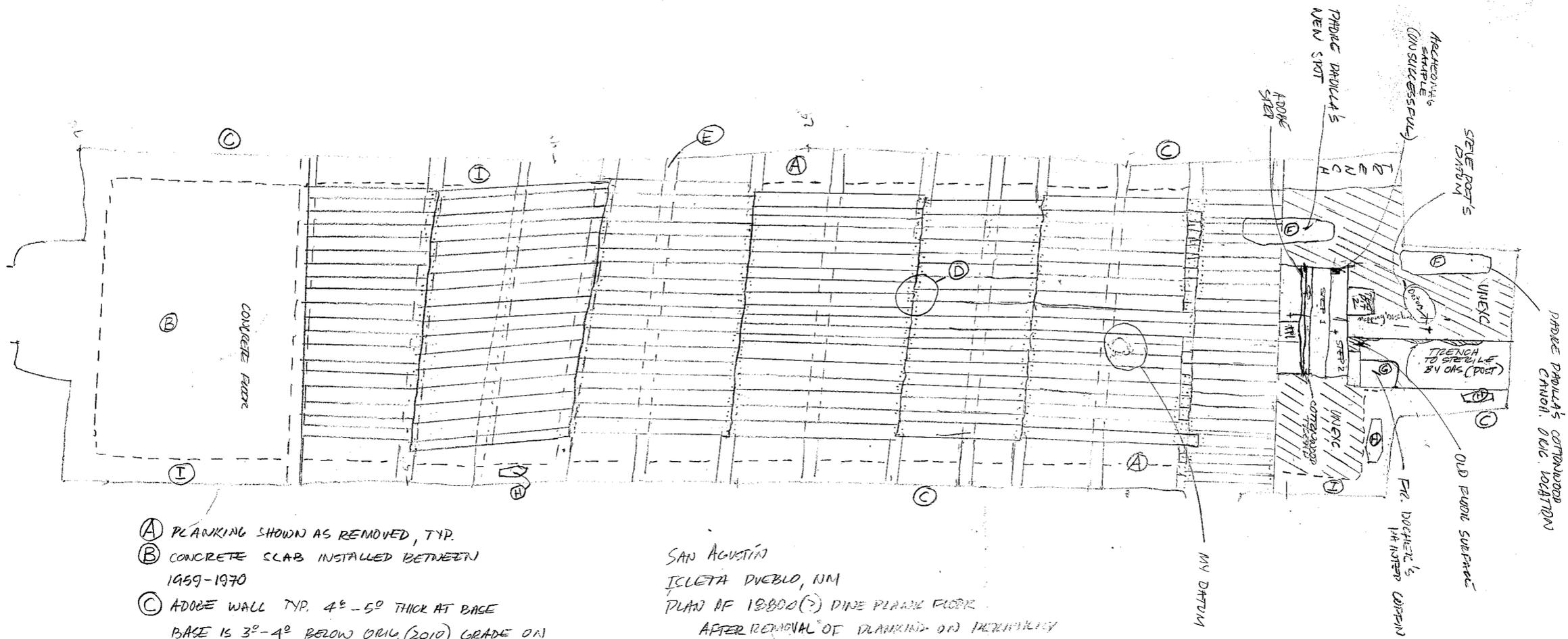
Jess Crocker, project supervisor, shows Celestino Lucero, a member of the Cultural Committee, a salvaged board bearing the name of one of the more famous priests at Isleta. Fr. Anton Docher came to Isleta in 1891 and died there in 1928. His blue coffin is under the altar. All artifacts remained on site and are currently under the care of the Pueblo of Isleta.



With the interior plaster removed from the sacristy, a sealed doorway to the sanctuary was revealed. This feature is now protected behind a furred-out wall in the new mechanical area.



At the request of the Restoration Committee, archeologist Steve Post was brought in to excavate the features in the sanctuary and apse. His report has been completed and submitted to the Pueblo of Isleta.



- (A) PLANKING SHOWN AS REMOVED, TYP.
- (B) CONCRETE SLAB INSTALLED BETWEEN 1959-1970
- (C) ADobe WALL TYP. 4" - 5" THICK AT BASE  
BASE IS 3" - 4" BELOW ORIG. (2010) GRADE ON EAST, 3" - 4" BELOW 2010 GRADE ON WEST
- (D) DINE PLANKING, RANDOM WIDTHS ATTACHED TO SLEEPERS (E) WITH CUT NAILS
- (E) 6x8 SLEEPER, HAND HEWN, WALL TO WALL BUT NOT EMBEDDED, RESTING ON LOOSE UNDIFFERENTIATED FILL RICH IN HUMAN REMAINS
- (F) HOLLOWED OUT COTTONWOOD "CANOA" COFFIN CONTAINING PR. PADILLA. MOVED TO NEW LOCATION DUE TO COLLAPSE OF WEST ADobe WALL.
- (G) PR. DOCHER'S PAINTED COFFIN PARTIALLY REVEALED
- (H) CHILDREN'S COFFINS REMOVED/REPLACED AFTER REPAIRS
- (I) DOTTED LINE INDICATES TRENCH EXC FOR BASE WALL REPAIR. SUBSEQUENTLY STABILIZED WITH FLOWTABLE FILL (LETAO PORTLAND) AND UTILIZED FOR HVAC CHASE

SAN AGUSTIN  
 ISLETA DUEBLO, NM  
 PLAN OF 1880(?) DINE PLANK FLOOR  
 AFTER REMOVAL OF PLANKING ON INTERIORITY  
 FOR BASAL WALL REPAIRS.  
 JUNE, 2010 SCALE 3/16" = 1'  
 E. CROCKER: ALIDADE & PLANE TABLE  
 (ADDITIONS JULY, SEPT., 2010  
 AND MARCH 2011)

MAG. NORTH

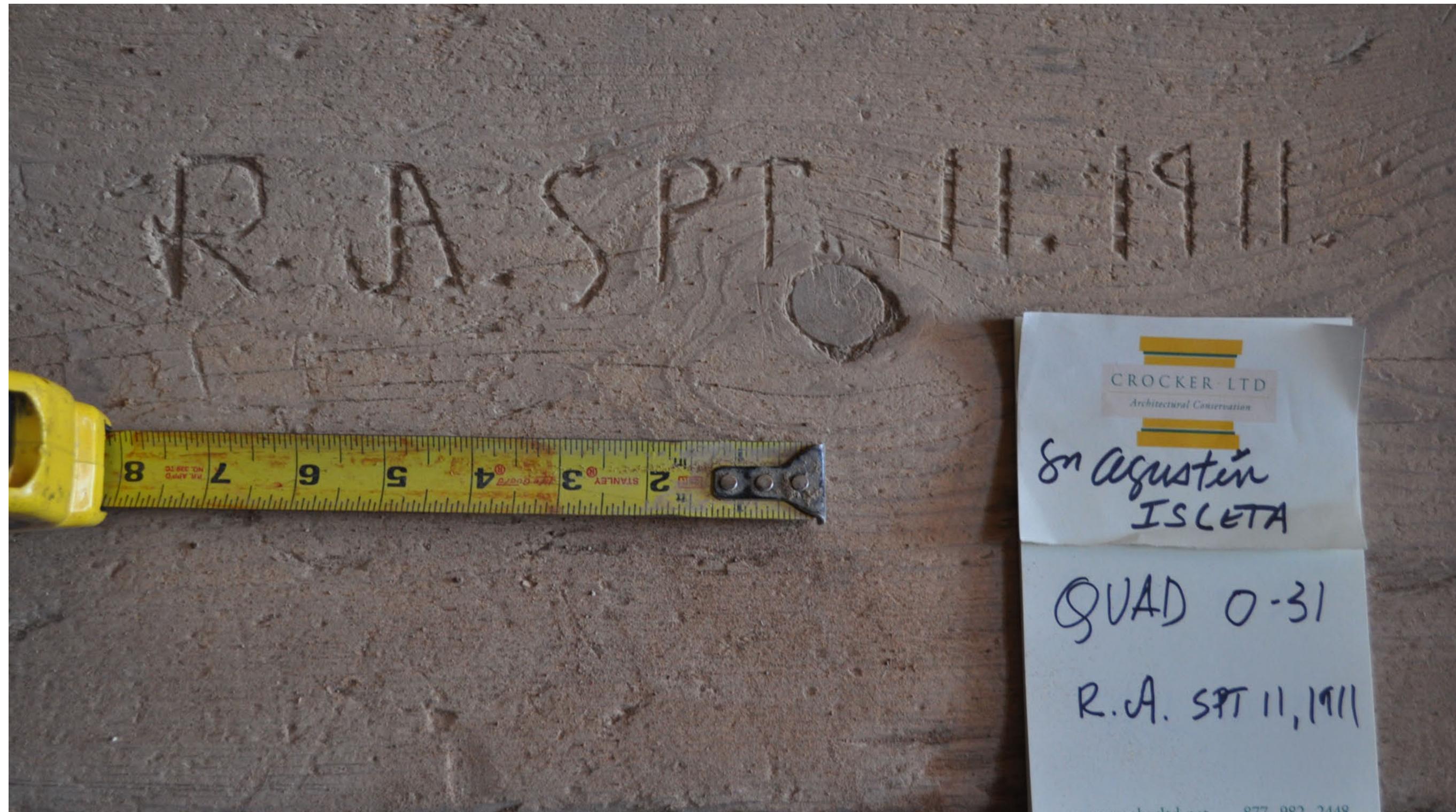
All architectural features discovered during the restoration were recorded.



Dendrochronologist Thomas Windes analyzed all of the wooden elements in the building. Here he illustrates his work to ( L - R ) Frank Lujan, Val Jaramillo and Celestino Lucero. Tom's report has been completed and submitted to the Pueblo of Isleta.



One of the corbels from the sanctuary.



One of many inscriptions on the late 19th century floor, possibly marking a grave site. These boards are also in the care of the Pueblo of Isleta.



Most interior walls were found to be painted with murals, often several layers.



Angelyn Bass and her company, Conservation Associates, was retained to analyze and document the paintings. Her report has been completed and submitted to the Pueblo of Isleta.



A late 20th century fire in the narthex left the underside of the choir loft largely destroyed and a reconstruction at the time was not true to the original. The restoration committee opted to completely restore the choir loft. Here, the carved beams are being prepared using one of the remnants as a template.



Because of the unconsolidated fill under the wood floor, helical piers were installed to support the choir loft. In keeping with good preservation practice, helical piers can be removed as easily as they are installed without damage to the building.



Re-assembly of the choir loft.



The 1959 concrete bond beam and CMU parapets were removed and replaced with treated “ladder belts.”



A full restoration workshop was set up on site. Here, the new belfries are being constructed.



All exposed wood used in the restoration was vertical grain fir or, if exterior, vertical grain cedar.



Joe Olguin of Isleta on one of the belfries as it nears completion.



Here, the SW corner is being laid out and reconstructed to bear the new belfry.



Once completed, the belfries were lifted into place.



The east facade after being stripped and in the early stages of restoration. Note the beam sockets, remnants of the *convento* that has long since been demolished. Rectified photos of all elevations were part of the documentation.



The interior west wall suffered a partial collapse of the veneer. Here the rebuilding of that wall is roughly 50% complete. More than 75,000 new, unamended adobes were used overall to complement the thousands that were recycled.



With the new belfries in place, work on the south facade continued.



One of the original bells being lifted into place.



The Cultural and Restoration Committees (Val Jaramillo shown) approved the local white clay as the interior finish.



An interior mud leveling coat was applied.



A shallow trench was excavated to accommodate stainless steel ducting for heating and air conditioning.



Preparation for installation of the new floor.



With the new floor in place, light fixtures were installed.



In preparation for the final plaster, a stop consisting of ceramic tiles sheathed in copper was dry-packed into the wall base at grade.



The Restoration Committee chose not to do an exterior mud plaster, so a special system combining elastomeric undercoats on non-vertical surfaces and a Portland finish coat was applied. The interior remains vapor-permeable with its local white clay finish.



Some of the key members of the team: L - R: Jess Crocker, Fr. Hilaire Valiquette, Val Jaramillo, Moses Lujan, Gene Jojola, Frank Lujan, Alan Cherino.



Numerous local classes and groups kept up with the restoration.



“...we want it to be strong, but we want it to look like it did on the day you arrived.”  
Gov. Frank Lujan, Chairman of the Restoration Committee.



The Saint Augustine church took 16 months to restore after nearly five years of planning. Throughout the process, the Pueblo of Isleta acted autonomously in the decision-making process. Nevertheless, the demand for quality and authenticity, for documentation and solid design, meets or exceeds any preservation standard that can be applied. From beginning to end it was the desire of the people of Isleta that this be “a hundred-year fix.” Every aspect of the work was conducted with that mandate in mind.



# St. Augustine Parish

Pueblo of Isleta

1613  
San Antonio de Padua  
de la Isleta Established

1693  
Renamed to  
San Augustine

1923  
Gothic-Style  
Renovation

1959  
Partial  
Renovation

2011  
Comprehensive  
Restoration

*The Pueblo of Isleta and the St. Augustine Parish graciously invite you to celebrate the Blessing of our restored Parish Church of St. Augustine in Isleta Pueblo.*

*The restoration will enhance the faithful of our parish to pray with Solemnity, Beauty and Dignity.*

*Archbishop Michael J. Sheehan will celebrate this glorious event on August 13, 2011 with Mass at 10:30 a.m.*

*Reception and activities following Mass.*

*Please RSVP to Pueblo of Isleta Governor's Office (505-869-3111) by July 22.*

