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Preserving Missions in the Pimería Alta

Dale S. Brenneman and Diana Hadley

Office of Ethnohistorical Research, Arizona State Museum

WHEN WE SPEAK OF preserving missions, what is it that we wish to safeguard? What is a mission? Most people, when they hear the term, think of a church. But in the Spanish colonial system, a mission was a center from which priests—authorized by the Spanish crown—set out to expose Indians to the word of God, educate them in the rudiments of Christianity, and train them in basic forms of Spanish social and political order.

This process frequently involved the movement of people, as missionaries gathered converts from scattered settlements into concentrated communities where they could be effectively and efficiently overseen both spiritually and temporally. Missionaries bestowed saints' names on these communities and introduced domesticated animals, as well as new crops, tools, and ways of life. All of this could and did begin without a formal temple of worship. The first "churches" in mission villages were often *ramadas*, simple roofed shelters supported by posts and lacking walls. The more elaborate, formal structures that came later—important as they were in the minds of both priests and converts—represent just one aspect of a mission.

In a sense, the preservation history of missions in the Pimería Alta dates back to their very beginning. In 1687, Father Eusebio Francisco Kino brought the Jesuit mission program to the far northwestern region of the Sonoran province known to Spaniards as the Pimería Alta. That vast land of Piman speakers, or O'odham, stretched northward from the Río Magdalena and Río Concepción across the present-day international border to the Gila River, and westward from the uppermost Río San Miguel and San Pedro River to the Gulf of California and Colorado River. Kino lost no time in exploring it. From the O'odham settlement of Cosari, which he renamed Nuestra Señora de los Dolores and made his home base (see page 10), the missionary set out the next day to visit the settlements of Ímuris, Cabórica, and Doagibubig, calling them San Joseph, San



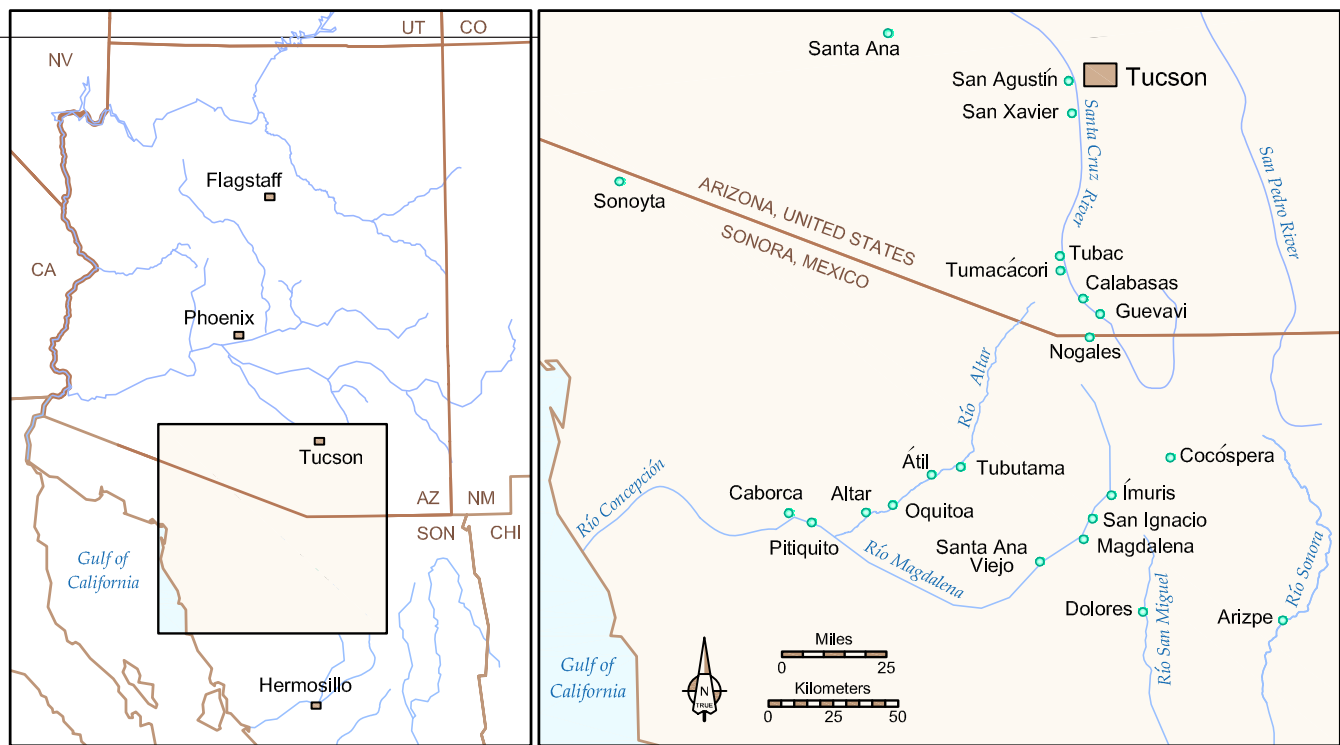
Henry D. Wallace

The mission complex at Caborca, Sonora, is a focal point of the community, but its stark white enclosure of columns and arches also sets it apart. Beyond it lies a natural domain of river, desert, and mountains. The adjacent river nearly destroyed the church in a major flood event, but community members organized to restore it and to celebrate their unique history (see pages 12–13).

Issue Editors: Dale S.
Brenneman and Diana Hadley

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Map of the locations mentioned in this issue of *Archaeology Southwest*.

Ignacio, and Nuestra Señora de los Remedios, respectively. By the time he died in 1711, Kino—assisted by only three or four missionaries at any given time—had extended a chain of missions as far west as the settlement of Caborca, on the Río Concepción, and as far north as San Xavier del Bac (see pages 4–6), on the Santa Cruz River. He had crisscrossed the Pimería Alta, baptizing infants and the mortally ill along every major drainage and penetrating the desert’s interior numerous times. He had also introduced wheat, barley, and other crops to those communities with sufficient water, and distributed livestock to numerous sites with good pasturage.

Yet the constant shortage of missionaries made the system difficult to maintain. In theory, missions consisted of one *cabecera*, a “head” community with a resident priest, and one to three *visitas*, visiting stations overseen by the priest. In reality, the status of *cabeceras* and *visitas* often fluctuated, depending on how many missionaries were available; many communities intended as *cabeceras* functioned for years as *visitas* of other missions. Kino and his fellow Jesuits successfully oversaw the construction of numerous flat-roofed, hall-shaped adobe churches, built by O’odham workers using local materials. For his own mission of Dolores, with *visitas* at Remedios, and Cocóspera (see page 10), Kino replaced such simple buildings with churches on a grander scale, the latter two boasting side chapels that formed transepts with arches.

Several Jesuit churches were laid to waste as early as the 1690s during an O’odham uprising and Apache attacks, and all fell victim to some form of destruction in the years that followed. Many simply melted away over long

periods of neglect. Missionaries tended to the communities to the extent possible and rebuilt churches as circumstances allowed. The arrival of new missionaries in 1732 renewed the flagging effort to the north, most successfully at Guevavi (see pages 7–8), but Apache attacks forced the abandonment of Dolores and Remedios during the 1740s, and the 1751–1752 O’odham rebellion effectively halted the effort at San Marcelo de Sonoyta.

Franciscans faced the challenge of preservation in 1768, when they took control of the missions following the Jesuits’ expulsion from all Spanish lands the year before. Assigning priests to each of eight *cabeceras*, they found the adobe Jesuit churches in a general state of disrepair. Their response was to embark on a building program in the mid-1770s, introducing the use of lime mortar and fired brick. In many cases, they “beautified” the Jesuit structures with Franciscan improvements, which often included new brick façades and portals, and are likely reflected in the churches we see today at Oquitoa (see pages 13–14), San Ignacio, and Cocóspera. Franciscan missionaries also oversaw the construction of entirely new edifices, some of which had elaborate features such as transepts, dome-shaped cupolas, vaulted roofs, and ornate façades; those still standing include Caborca (see pages 12–13), Pitiquito (see page 15), Tubutama (see page 11), Tumacácori (see pages 7–8), and San Xavier del Bac. By 1811, in a final thrust of expansion, Father Juan Bautista Llorens established the northernmost church in the Pimería at Santa Ana de Cuiquiburitac as a new *visita* of San Xavier. Situated on the flats southeast of the Santa Rosa Mountains, its adobe chapel has since melted completely away.

Ironically, as the Franciscans were renovating and renewing the missions' churches, the native communities at the missions were in decline. The Jesuits' expulsion in 1767 undermined the role that Jesuits had played in preserving native communities and facilitated the movement of settlers onto what had been O'odham lands. As mineral discoveries drew a variety of people to the region during the late eighteenth and nineteenth centuries, the O'odham mission communities were gradually taken over by non-O'odham miners and ranchers. By 1818, San Ignacio was largely a non-Indian town, with its missionary ministering to some three dozen Spaniards and *mestizos* (people of mixed ancestry) for every one Indian.

The ability of the O'odham to withstand this slow invasion was significantly undermined by disease epidemics and Apache attacks, which greatly reduced their numbers despite the recruitment of O'odham from the interior desert. For example, according to Father Antonio Barbastro, Tubutama had only eight remaining O'odham families by 1793. Mexican independence in 1821 left the missions without support. In 1828, the expulsion of all Spanish friars from the Pimería Alta hastened the decline of its missions. By 1839, Father President Faustino González had reached the conclusion that O'odham mission communities had become too interspersed with the newcomers, defeating the missions' purpose. The last missionary was gone by 1844.

In this issue of *Archaeology Southwest*, the challenges inherent in mission preservation are discussed from a variety of perspectives. First, Bernard L. Fontana reviews preservation efforts at San Xavier del Bac, and then Fontana and Gloria F. Giffords write about two aspects of the destruction and re-creation of the San Xavier mission wooden lions. Father Stephen Barnufsky discusses the role of San Xavier's pastor, and Austin Nuñez presents a short history of the San Xavier District, the portion of the Tohono O'odham reservation that contains San Xavier del Bac.

Jeremy Moss recounts the history of mission preservation north of the border at Tumacácori, Calabasas, and Guevavi. Júpiter Martínez and Abby Valenzuela provide a

Sonoran perspective on preservation, with a focus on the missions at Dolores and Cocóspera. Irene Ortiz Gastélum, Leonor Elvira Ortiz Romero, and Lucrecia Ortiz Gastélum discuss their role as *celadoras* (guardians) of the church at Tubutama and present their memories of the Franciscan priest Father Kieran McCarty. Gloria Elena Santini de Vanegas writes about the challenges involved in the recent renovation of Caborca, which was completed in time for its bicentennial. Then James S. Griffith recounts several stories about the mission at Oquitoa.

Dale S. Brenneman discusses the Kino Mission Tours, held in the spring and fall of each year, sponsored by the Southwestern Mission Research Center. Enrique Salgado discusses the Patronato de Kino, a group of horseback riders who make *cabalgatas* (horseback trips) along trails ridden previously by Kino. David Shaul writes about performing sixteenth-century music at San Xavier and Tumacácori with the group Camerata Tucson. Then Donald T. Garate reviews the findings of Mission 2000, a database of more than 28,000 individuals contained in various

mission records, presidial chapel records, troop reviews, and censuses.

David Yubeta writes about the proper care of adobe structures, and R. Brooks Jeffery discusses TICRAT workshops, which teach individuals on both sides of the border about traditional adobe and plaster techniques.

Jesús García discusses historic fruit trees that have ties to missions in the Southwest. Then Marjorie Dixon provides a brief history of Wilbur-Cruce Spanish Barb horses and their connection to Kino, followed by Diana Hadley, who writes about the history and influence of *criollo* cattle. Dale S. Brenneman looks at the efforts of the Office of Ethnohistorical Research, Arizona State Museum, to involve Native Americans in the interpretation of mission history, and Diana Hadley discusses Tucson's birthplace.

Finally, William H. Doelle writes about the way that intellectual and emotional experiences connect people to places of the past—in this case, the Kino missions.



Bernard L. Fontana

Damaged during an earthquake in 1887, the mission at Cocóspera, in Sonora, awaits reconstruction.

A Brief History of Preservation at Mission San Xavier del Bac

Bernard L. Fontana, *University of Arizona, Retired*

THE PRESENT CHURCH of Mission San Xavier del Bac was constructed by the O'odham under Franciscan auspices and Spanish planning and supervision between 1783 and 1797. Built entirely of fired brick, stone, and lime mortar, this fourteen-year project resulted in what is arguably the most astounding artistic and architectural achievement to be seen today in the Sonoran Desert.

The triumph of Mexico's battle for independence from Spain in 1821 marked the beginning of the end of missionary endeavors in the Pimería Alta. San Xavier's final resident Franciscan departed in 1837. In 1841, with the church not yet fifty years old, Franciscans abandoned the mission. For about a decade, its fate resided in the hands of circuit-riding secular priests who may have visited once each year. The church also remained under the watchful care of the native villagers who had built it.

In 1859, San Xavier was placed under jurisdiction of the bishop of Santa Fe. At the bishop's behest, his vicar general, the Very Reverend Joseph P. Machebeuf, spent from June to September in Tucson and at Bac, where, among other tasks, he is said to have effected partial repair of the sixty-two-year-old deserted edifice. In 1868, Mission San Xavier came under jurisdiction of the Vicariate Apostolic of Tucson, and secular clergy from the nearby town made regular visits there. The church proper seems to have remained in reasonably tolerable repair until shocks from an earthquake on May 3, 1887, centered in northeastern Sonora, caused cracks in the south wall, the west wall of the west transept, and in the main dome. The atrium wall collapsed, as did the wall around the adjacent cemetery.

In the 1890s, Father Peter Bourgade, then the vicar apostolic of Tucson, joined forces with the federal government's farmer-in-charge at San Xavier to shore up the stone foundations in front of the church and to make repairs on the roof, cornices, windows, and balconies.

Between 1905 and 1908, the Most Reverend Father Henrí Granjon devoted his own funds, labor, and energy to a three-year program of restoration and rehabilitation of the church and grounds. He gave the mission its first complete coat of white lime plaster, rebuilt the balustrades of the towers and the wooden balconies, rebuilt the wall around the cemetery and mortuary chapel as well as the atrium wall, adorned the parapet with finials and plaster lions' heads, and built a graceful arch on the north side of the mission's cloistered patio.

Franciscans returned to the mission in 1913. Between 1949 and 1958, Father Celestine Chinn teamed up with Tucson architect Eleazar Herreras in a program of major repairs to the church, including restoration to the façade of the church. This was followed in 1967 by further improvements, cleaning, and repairs, on both the interior and exterior, which were made by builder James Metz under the supervision of Father



Rhod Lauffer

The Virgin Mary, in Mission San Xavier del Bac's epistle-side transept.

Kieran McCarty (see page 11).

The most recent program of mission rejuvenation began in 1987 under the auspices of the nonsectarian and not-for-profit corporation, Patronato de San Xavier, with work—still ongoing—on the structure of the church itself carried out by the Morales Construction Company, now Morales Restoration and Builders, Inc. For three months each year between 1992 and 1997, also under the auspices of the Patronato de San Xavier, cleaning, stabilization, and restoration of the church's interior painted and sculptured art was carried out by an international team of conservators, most of them from Italy. Their work was coordinated by Paul Schwartzbaum, head of conservation for the Solomon R. Guggenheim Museum of New York City and Venice, Italy. A continuation of these efforts in the baptistery is being conducted a few weeks each year by conservators Timothy Lester Lewis, a local O'odham, and his Spanish wife, Matilde Rubio.

The Sanctuary Lions of San Xavier del Bac

Bernard L. Fontana, *University of Arizona, Retired*

ON THE MORNING of August 6, 1982, an itinerant who had been hired by the friars at Mission San Xavier del Bac to work as a handyman removed the original eighteenth-century, carved polychrome wooden lions from the sanctuary railings. He then dumped and burned them in the pit of the privy that had been built by Bishop Henrí Granjon at the rear of the church for his use between 1905 and 1907. The friars had been using the abandoned pit as an incinerator.

The lions' disappearance remained an unsolved mystery until November 2002, when Father Walter Holly received a letter from the man—then living in Albuquerque—confessing the crime, enclosing a ten-dollar bill, and explaining that he suffered from “a severe case of chronic paranoia schizophrenia.”

As Gloria F. Giffords recounts below, new lions were installed and formally blessed at San Xavier del Bac on July 17, 1988.

San Xavier's New Lions

Gloria F. Giffords, *American Institute for Conservation*

IN THE SUMMER OF 1985, three years after the disappearance of the two wooden lions that had guarded the entrance to the sanctuary of San Xavier del Bac, a project was initiated to replicate them. Historic drawings and photographs provided information on the lions' size and appearance.

The Ortega family, in the Mexican city of Puebla, who had been carving carousel animals for at least two generations, was asked to carve replicas of the missing lions. The type of wood used for the original figures was probably a fine-grained hardwood, such as cypress. Conveniently, the Ortegas most often used for their work *ahuehuete*, a widely distributed type of Mexican cypress. A hollow plank construction was used for the torso, the eyeballs were carved in place (though the original lions' eyes were probably glass), and details of the manes were carved.

The new lions arrived in Tucson in 1985. Rhod Lauffer, then of the Tucson Museum of Art, was enlisted to carve and attach modifications to their lower jaws to help them better resemble the originals. Then the lions were allowed to sit for two years to dry completely. During that time, large cracks developed in some of the planks used for the heads and backs. In November 1987, the cracks were repaired. Using a traditional formula of whiting and animal-hide glue, the lions were given several coats of gesso and then sanded. Because it was recognized that the pub-

lic would be touching the lions, the gesso was deliberately toned with powdered raw umber. That way, these sanded coats would serve not only as a leveling over the entire surface but also as the body color, so that no matter how

much stroking they received, unless they were massaged down to the wood itself, the color would remain. A red bole (soft, oily clay) was applied to the lions' faces and tail fringes and then sanded and buffed. More than five hundred leaves of twenty-two-carat gold were applied in several layers over the bole. In the folds of the mane,



One of the new wooden lions created for Mission San Xavier del Bac, by the Ortega family of Puebla, Mexico.

Rhod Lauffer

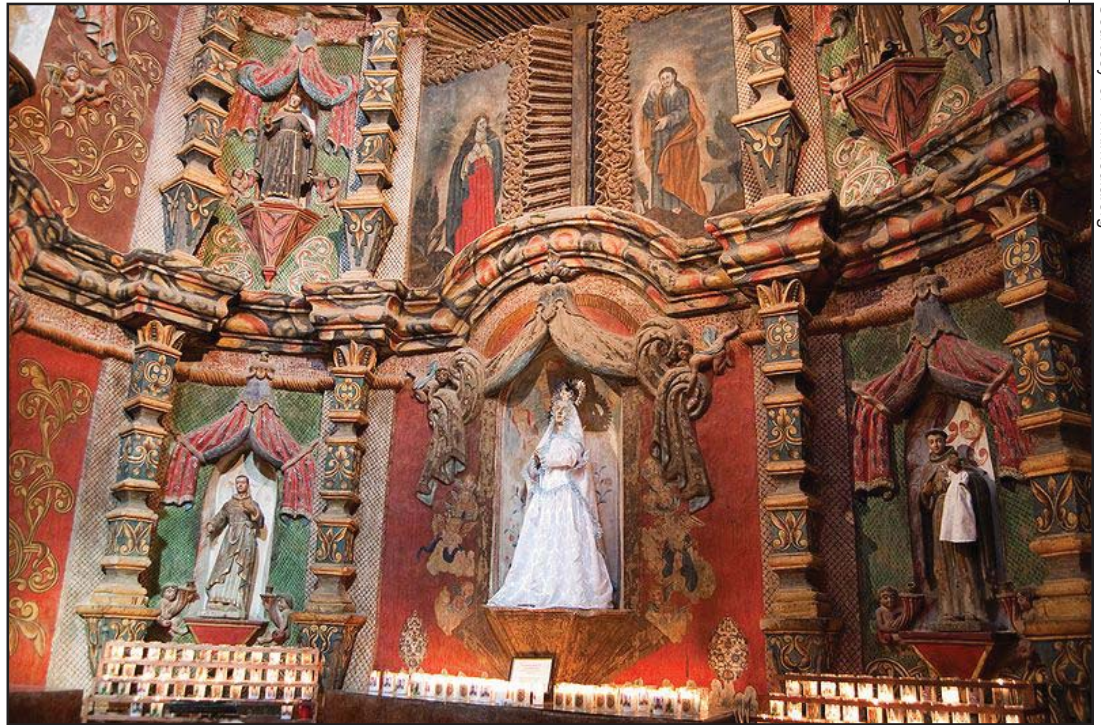
where it was impossible to place the gold leaf, yellow ochre gouache was brushed into the crevices. The lions were then buffed with rotten stone (fine, powdered rock) until some of the leaf was abraded and the bole allowed to show through. Further brushed coats of shellac trapped the rotten stone in crevices, giving the lions a slightly dusty and worn appearance.

The following summer, the figures were bolted firmly in place and, after mass, blessed by the attending friar, Father Capistran Hanlon, O.F.M. Twenty-one years later, these new lions continue to gradually and gently blend in with the church's other furnishings.

San Xavier del Bac

Father Stephen Barnufsky, Mission Pastor

JUST AS THEIR ANCESTORS worshiped and were baptized at San Xavier, so too do the Tohono O'odham today come to celebrate their faith here. But the mission has significance to many others. For some people, it is a place to come to pray and find peace. For others, it is a historical landmark that is visited for its unique architecture and photographic charm. The challenge for the pastor of this unique church is to respect and address the needs of all these people. It is a challenge that I happily accept each day.



Courtesy of Wikimedia.org

A view of San Xavier del Bac's ornate interior.

The San Xavier District

Austin Nuñez, Tohono O'odham Nation

THE FIRST LAND to be officially set aside for the O'odham people is now known as the San Xavier District. In 1874, 71,095 acres of farmland and desert surrounding the mission were established as the San Xavier Indian Reservation, though that acreage made up only a small part of the original O'odham land base. Sixty-one years later, the Sells Reservation of the Papago Tribe of Arizona (as it was known then) was added, creating a reservation approximately the size of Connecticut. Today, the Tohono O'odham Nation contains 2.8 million acres, and the San Xavier District is the second in size of the nation's twelve districts.

Having the San Xavier del Bac mission as the centerpiece of our district has been very useful in raising awareness about the Tohono O'odham people. Although the district wants to do

more to facilitate tourism in the future, we certainly appreciate what has been done so far. The Patronato de San Xavier has taken responsibility for preserving and restoring the structure and the beautiful artworks in the mission's interior, and the church has created a museum that provides information about the history and culture of our people. Many of our 300,000 yearly visitors shop in the arts and crafts plaza, where three permanent vendors sell baskets and other craftwork made by artisans who work from home. Food vendors, up to twelve of them at any given time, also make a living selling traditional O'odham foods, such as fry bread and Indian tacos. Our two annual festivals on October 4 and December 4—one for each of the two St. Francis, the Franciscan St. Francis de Assisi and the Jesuit St. Francis Xavier—attract very large crowds. Although the influx of non-Indians led some O'odham to request that a resident-only mass be said without outsiders, no one is turned away. Overall, the presence of the mission has been a major force for creating community cohesiveness.

Austin Nuñez has served as chairman of the San Xavier District of the Tohono O'odham Nation since 1987, making him one of the longest-serving elected officials in O'odham history.

Preservation of the Tumacácori, Calabasas, and Guevavi Mission Ruins

Jeremy Moss, National Park Service

THE HISTORY OF PRESERVATION at Tumacácori National Historical Park parallels the history of historic preservation in the National Park Service (NPS). In the early days, NPS personnel favored restoration, using traditional materials for historical accuracy. Many monuments were cultural sites with standing architecture in states of disrepair and rapid loss; restoration helped to make ruins more structurally sound. NPS officials and preservation specialists thought that ruins required restoration because they lacked the characteristics needed to tell an interesting story to visitors. Over time, the use of traditional materials gave way to nontraditional products, primarily to extend maintenance cycles. Today, we attempt to preserve the structures in their “ruined state,” limiting the rebuilding involved and returning to traditional materials and methods. Buried archaeological resources are protected through consideration of the effects of NPS activities.

The park, which celebrated its centennial in 2008, consists of three detached units with preserved remnants of Spanish colonial mission churches and significant buried archaeological resources. The mission sites of San José de Tumacácori, San Cayetano de Calabasas, and Los Santos Ángeles de Guevavi were historically connected communities. The preservation histories of the three sites differ, however, as does their research potential.

The large Franciscan church of San José de Tumacácori is a prominent landmark along the Santa Cruz River, whose south-north flowing stream has served as a travel corridor for thousands of years. Following abandonment of the mission in 1848, forty-niners began to pass by the church and record their impressions in journals. Many more travelers wrote about Tumacácori than about Calabasas or Guevavi. With intact ceilings in its baptis-

tery and sacristy, the church provided shelter, and its cemetery made a good corral.

The church was the center of treasure stories in the area, causing looters to search for buried precious metals. Thus, due to geography, the highly visible nature of the structural remains, and treasure-hunting activity, San José de Tumacácori was the most obviously threatened and the earliest of the three mission churches to be preserved.

Tumacácori National Historical Park was first established as Tumacácori National Monument on September



This photograph of the church at San José de Tumacácori was taken sometime between 1868 and 1872.

15, 1908, with the Spanish colonial mission church as its central structure. President Theodore Roosevelt designated the national monument using presidential proclamation powers. Initially covering only ten acres, the monument was born out of local awareness of the church's significance, interest in old buildings, and concerns over looting of antiquities.

Frank Pinkley, newly employed by the NPS, completed the restoration of the church roof, the façade pediment, the pulpit, the cisterns, and the cemetery wall between 1919 and 1922. A. S. Noon, who worked for Pinkley, excavated the church floor in 1919, finding that very little

Courtesy of Jeremy Moss

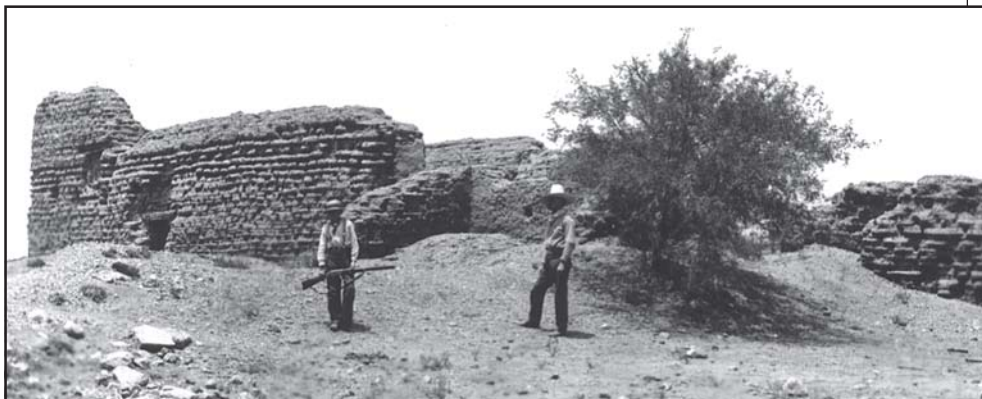
was left due to treasure hunting. The façade columns, damaged by the 7.4-magnitude earthquake of 1887, were restored in 1947, in what was the last major restoration project. The exterior plaster of the church and *convento* has been replaced numerous times and is on a three- to five-year maintenance cycle.

The interior plaster of the church is mostly original. In 1949, NPS employee Charlie Steen and Harvard University conservator Rutherford Gettens cleaned and stabilized the interior plaster, revealing painted plaster. For the past fifty years, preservation specialists have attempted to maintain existing conditions and protect the original interior plaster of the nave and sanctuary using both traditional and nontraditional materials.

San Cayetano de Calabasas is a preserved island of Spanish colonial, Mexican, Native American, and United States history. Established as a *visita* of the Tumacácori mission in 1756, Calabasas also served as a cattle ranch for the mission, and later for Sonora's governor, Manuel Gándara. Although noted by forty-niners and other travelers, Calabasas was not visited as much as Tumacácori; additionally, because its structural remains, including the church and *convento*, were smaller and drew less attention, scholars were slower to begin researching its history and determining the exact age and function of its remains. The site came under the management of the NPS in 1990, when the Arizona Historical Society donated the land. During the past twenty years, development has encroached on the Calabasas viewshed, and its visitors today witness the modern urban environment and the socioeconomic changes the region is undergoing.

Preservation at Calabasas has largely focused on keeping water off the extant adobe ruins with a metal protective cover and deterring vandals and illegal immigrants by fencing the main ruin's compound. Periodically, preservation crews cap the exposed adobe walls with mud, but overall, the structure has been left as is—a very different philosophy than at the Tumacácori mission church. There has also been less archaeological inquiry at Calabasas than at the other two sites.

Los Santos Ángeles de Guevavi was established by the Jesuits as the first *cabecera*, or head church, in what is now southern Arizona; it is one of a few purely Jesuit sites in the American Southwest. Guevavi “feels” different than the other two sites, with a setting more evocative of its



Top: San Cayetano de Calabasas around 1920. Bottom: Los Santos Ángeles de Guevavi in 1889. (Photographs courtesy of Jeremy Moss.)

historic landscape. It is surrounded by a cattle ranch operating much like mission period cattle ranches two hundred years ago. Intact archaeological sites from the early eighteenth century through the nineteenth century surround the church and *convento* ruins. Previously owned by the Archaeological Conservancy, Guevavi was acquired by the NPS in 1995, and was the last to be preserved.

By the time preservation specialists began looking at Guevavi, most of its original adobe walls had fallen. One side of the adobe church still stands ten feet tall, but other sections consist of short walls. The walls are capped every year to prevent water from eroding the exposed adobe from the top. Unlike Calabasas, there is no protective shelter, because an obtrusive metal shelter over the ruin would detract from the setting. The trade-off, however, is a greater loss of original fabric and more frequent preservation work to repair the adobe cap.

Missions of the Pimería Alta: A Sonoran Perspective on Preservation

Júpiter Martínez, Centro INAH Sonora
Abby Valenzuela, ENCRyM-INAH

THE PIMERÍA ALTA MISSIONS in Mexico are living communities whose churches are a legacy of the Jesuits and the Franciscan spirit of renewal. Under custody of the Archdiocese of Sonora, every church built before 1900 is protected by federal law. This means that responsibility for maintenance and security of the buildings and sacred art falls to the priests in charge, who can ask for support from municipality, state, and federal governments, as well as civil organizations. However, any intervention must be authorized by the National Institute of Anthropology and History (INAH), whose regional office is located in Hermosillo, the state capital.

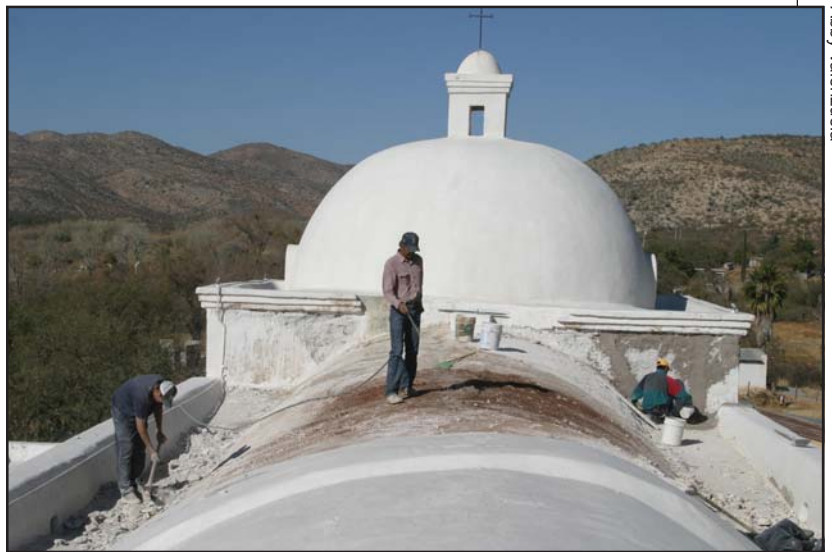
Without a doubt, the primary guardians of the temples and their sacred art are the people of the communities. The *celadoras* (guardians), mainly women of the community who work under a rotation system, are always attentive to what happens with regard to the churches. Not only do they open and close the doors, ring the bells, and direct the rosaries, but they also monitor the buildings for needs, risk, and damage, as well as lend their unconditional support during patron saints' festivals. It is the *celadoras* who usually organize committees to collect funds for maintenance of the churches, whether by asking for donations or by selling food under a voluntary work system.

The paradox of basing the mission system's continuity in community organization is that sometimes the community's impulse to strengthen its identity leads to a loss of interest in its old church and the building of a new, larger, higher, or more "modern" church, as has happened in the past in Caborca, Átil, Sáric, and Ímuris. The most surprising cases we have observed are in San José Baviácora on the Río Sonora, where the community closed the old church and built a neogothic one just next to it, and in Hermosillo, where the community abandoned the chapel of San Antonio, the oldest church in Hermosillo, and built a modern church nearby.

Raising awareness about the need to preserve historic buildings is a challenge for INAH, but great strides have been made by working together with other entities rather than in isolation. For example, the Adopte Una Obra de Arte regional committee recently carried out major restoration of the mission church of La Purísima Concepción de Nuestra Señora de Caborca under the advice of restorers (see pages 12–13). At Mission San Ignacio de Cabórica, under INAH supervision, the community and the U.S. National Park Service resolved a moisture problem by waterproofing and painting with traditional techniques. Currently, there is a project planned for the restoration of the church murals at San Diego de Pitiquito (see page 15), which INAH is endeavoring to accomplish with local resources and support from the School of Conservation and Restoration of the West in Guadalajara. Other important needs include intervention for the church at Tubutama (see page 11)—especially its façade—and a preservation program for the church ruins at Átil.



The Southwestern Mission Research Center recently helped defray the cost of new doors for the mission church at Tubutama.



Waterproofing the San Ignacio de Cabórica mission using traditional materials—lime, soap, and alum.

Tobi Taylor

Abby Valenzuela

Nuestra Señora de los Dolores

Júpiter Martínez, Centro INAH Sonora

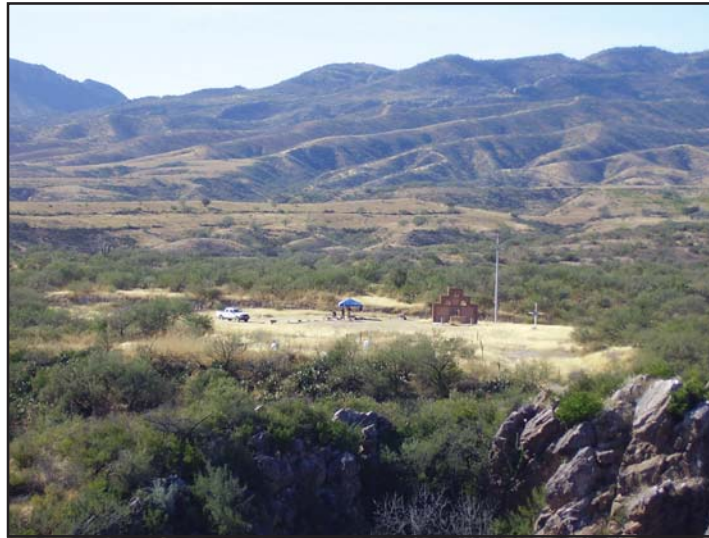
THE COLONIAL SITE of Dolores was mapped for the first time in 2004 by Mexico's National Institute of Anthropology and History (INAH). Although it was found to have been bisected by a road, the site had not been totally destroyed. At least eleven architectural features were located and recorded, among them four melted adobe mounds, suggesting that much of what we were expecting to find was still preserved. The surface artifact assemblage was a mix of pre-Hispanic and colonial period material that included stone tools, white-ware and brownware ceramics, and a couple of scrapers made from glass.

Excavations during the winter of 2006 located the Jesuit mission structures between one and a half and three feet below the surface. This was a very important find,

since Mission Dolores was Father Eusebio Francisco Kino's home. The excavations revealed rock foundations up to four feet thick, with remains of adobe walls on top, in addition to some plaster with very faint red coloring. Under these adobe walls were postholes associated with a prehistoric village located on the site prior to the arrival of the Spaniards.

Today, the site is on land belonging to the Terán family, who built a façade and an altar on the mission site at which to hold a mass once a year on the anniversary of Kino's arrival in Sonora. Recently, INAH donated an informational sign to

be installed on the site. Even though the land is privately owned, the archaeological remains of the mission belong to the nation, and no one may excavate there without federal authorization.



Júpiter Martínez

Nuestra Señora de los Dolores was Father Kino's home mission.

Nuestra Señora del Pilar y Santiago de Cocóspera

Júpiter Martínez, Centro INAH Sonora

Abby Valenzuela, ENCRyM-INAH

COCÓSPERA is a complex ruin with at least two structures: an adobe building dating to the Jesuit period, inside a brick-and-plaster roofless building dating to the Franciscan period. Cocóspera was damaged during an earthquake in 1887, when the settlement was already almost completely abandoned and there was no one to repair and maintain the buildings.

In 2007, funded by the National Coordination of Cultural Heritage Conservation, the National Institute of Anthropology and History completed a proposal for a multidisciplinary rehabilitation project. The idea is to raise the adobe walls to their maximum known level, and placing on them a wooden structure that will support a copper roof. All preliminary studies on engineering, resistance, and wind-tunnel effects have been accomplished, and we have circulated the proposal among specialists. Unfortunately, the project appears to be mired in bureaucracy and inaction while this important historical monument decays.

Model of the proposed restoration at Nuestra Señora del Pilar y Santiago de Cocóspera.



San Pedro y San Pablo del Tubutama

Irene Ortíz Gastélum

Leonor Elvira Ortíz Romero

Lucrecia Ortíz Gastélum

WE ARE THREE CELADORAS (guardians) of our beloved church, Tubutama. Missionaries such as Father Kino and Father McCarty (see below) left behind many teachings, religious traditions, and instructions to value and protect this architectural jewel. Offi-

cially declared a historical monument, our church is now severely deteriorated. At times, we feel powerless to preserve it, as we lack the resources for a thorough restoration.

There are individuals, though, who love this community and who have provided assistance for emergency repairs, such as the construction and installation of the door at the entrance to the church, for which we also received funding from the Southwestern Mission Research Center in Tucson.

It would be a great tragedy if our church were left to deteriorate even more, because we view it as part of our daily lives. The Tubutama mission is our pride, and is essential to the practice of our religion. The church came to us through the sacrifices of our missionaries. It is a treasure not only to us, but to all those who value the legacy of Father Kino.



Aerial view of San Pedro y San Pablo del Tubutama (middle left), facing onto Tubutama's town plaza.

Our Memories of Father Kieran McCarty (1925–2008), Franciscan Priest and Scholar

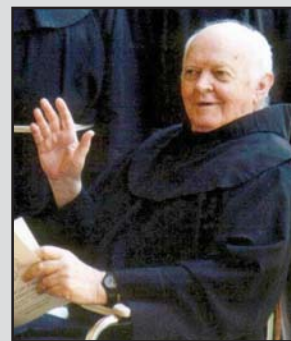
When you came to Altar, Sonora, as the assistant parish priest, you visited all the towns in the parish, among them Tubutama. Here you felt so comfortable and so beloved by the people that from 1965 to 1969, you made our village your home.

From Tubutama, you attended to the needs of the faithful at Sáric, La Reforma, Átil, San Juan, and Cerro Prieto. You loved to visit the rancherías, the humble villages, where you came to know the people. Do you remember that on these trips you were often accompanied by your dear friends, Irene, Yolanda, María del Carmen Martínez (La Chata)? And that sometimes your friends among the children, René Ortíz and Juan Adolfo Orcí, were your companions?

We remember that you took your meals in the home of Yolanda's father, José Juan Ortíz, and slept in the church, in the priest's bedroom. You were never without your recorder—it was always turned on so you would know what was said and thought. You were always asking questions. Later we learned that you were a researcher on the life and work of Father Kino, and that because of this, you asked so many questions and were so pleased to hear our stories.

We have not forgotten one special incident. In the evenings, you said you often heard footsteps but saw no one. So you hung your habit in the doorway, to determine whether the footsteps came from this world or the world beyond. If they came from this world, they would stop at the doorway, but if they came from the other world you would continue hearing them. To whom did those footsteps belong?

Father McCarty, in this mission town we remember you as you were—a long-suffering missionary—and for this we will always carry you in our hearts with great affection. We pray that God will give you what you always desired—to be close to Him.



The Mission Church of La Purísima Concepción de Nuestra Señora de Caborca

Gloria Elena Santini de Vanegas, Patronato del Templo

ONE OF THE FINEST colonial churches in the Pimería Alta, Caborca represents the westernmost mission associated with Father Kino.

Kino brought his mission program to the *ranchería* of Caborca in 1692, dedicating it to the Immaculate Conception of the Virgin Mary. The community's first church was constructed two years later by Father Francisco Xavier Saeta, who was martyred soon after in the O'odham uprising of 1695; burned during the course of that insurrection, the church was repaired in 1698. A replacement church was constructed between 1702 and 1706 under the direction of Kino, but it fell into ruin by 1730. A third church built between 1743 and 1749 was partially destroyed during the O'odham rebellion of 1751, when once again Caborca's resident missionary was killed.

With the expulsion of the Jesuits from Mexico in 1767, the Franciscan fathers were placed in charge of the missions. Initially, they repaired and "beautified" the Jesuits' partially destroyed adobe church, but by 1792, they were planning a new structure of stone and mortar.

Construction on the present church began in 1803 or soon thereafter, on a site less than a mile to the east of the previous locality. The architects were the Gaona brothers, who were also responsible for the design of Mission San Xavier del Bac, near Tucson (see pages 4–6). On May 8, 1809, the first mass was celebrated, dedicating Caborca's new church to Kino's original devotion, Our Lady of the Immaculate Conception.

The history of the church reflects the history of Caborca. There are bullet holes on the building's façade, left from a battle in April 1857, when the people of Caborca



Henry D. Wallace



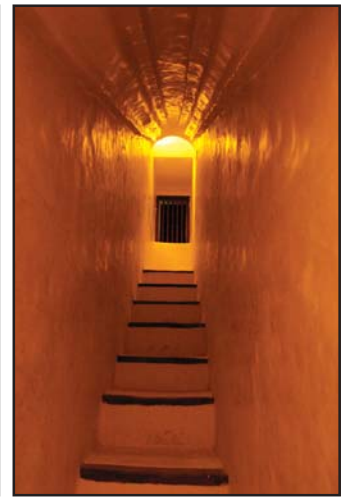
Miriam Trelles

Top: Just in time for its bicentennial, the historic mission of Caborca stands fully restored as a symbol of Caborcan identity and as a reminder of the days when Sonora was part of the Spanish empire. Left: View of the restored Caborca mission from the plaza.

defeated and killed Henry Crabb, a former California state senator, and his group of irregular soldiers, who were attempting to seize control

of Sonora. During this six-day siege, Caborcans defended their town, their church, and their national sovereignty, and earned for Caborca the title Heroic Caborca, which became its legal name in 1948.

Raging floods of the nearby Río Concepción, abuses during times of religious persecution, and occasional periods of neglect have in no way diminished the spirit of this mission church, or the love that Caborcans feel for it.



Three views of Caborca's restored interior, including the repainting of the original frescoes. (Photographs by Miriam Trelles)

It was declared a national monument in 1987, and was returned to religious use in 1997.

Recognizing this church's importance as part of our national heritage, the Caborca Regional Council of Mexico's Adopte Una Obra de Arte committee—a group of concerned citizens supported by the Caborca community, as well as by the state and federal governments—set out to conserve and restore the church for the bicentennial celebration. Planned in Mexico City, the project was carried out by Caborcans who were trained on site, and

who were also involved in carefully focused work on the walls, floors, towers and roofs, *retablos* (devotional paintings), woodwork, ironwork, and painting, as well as on the interior and exterior illumination. The highlight of the restoration of Caborca was the colonial period murals found underneath multiple coats of interior plaster and paint.

Today, after four years of effort, the council can take pride in having contributed to the restoration of this important part of our heritage.

Intangible Colonial Artifacts: The Example of Oquitoa

James S. Griffith, Southwest Center, University of Arizona

THE CHURCH OF SAN ANTONIO stands on a hill above the village of Oquitoa, a few miles upriver from the Sonoran town of Altar. It contains several interesting pieces of eighteenth-century religious art, including large oil paintings depicting the Passion of Christ. These were originally part of a wooden *retablo* (altarpiece), which decayed and was dismantled sometime after 1925, when it was photographed. There are also several eighteenth-century statues, including a life-sized crucifix, a Sorrowing Mother, a smaller St. Joseph, and a beautiful red-and-gold miniature cradle that is brought out every Christmastime to hold a modern statue of the Christ child. Over the altar are a colonial period Guadalupe painting and a foot-high statue of San Antonio, the patron saint of the church and its village.

There are also legends that are still a living part of the community and that are told as history by many older Oquitoans. One legend cycle concerns a Franciscan priest, Joaquin Olizarras, who served Oquitoa from 1806 until his death there in 1812, at age thirty-eight. He was buried

in the nave of the church, only to be exhumed and reburied twice. He must have been a remarkable man for his memory to survive so many years.

Olizarras is said to have been a bilocator—he could be in two places at once. A common version of his legend has it that he was called to go from Oquitoa upstream to Tubutama, to attend to a dying man. When he arrived at a point near the present site of the Cuauhtemoc Dam on the Río Altar, he found the river impassable. According to the Indian who accompanied him, he knelt on the bank in prayer and remained thus for several hours. In the meantime, people in Tubutama saw him arrive in their village, minister to the dying man, and depart again. Another well-known story has him dissipating a *culebra de agua*—a dangerous funnel cloud—by simply walking out his door and making the sign of the cross.

Others tell that when the church authorities heard of Olizarras' apparent miracles, they summoned him to give an account of himself. He arrived in the midst of a rainstorm, entered the office, and hung his sopping cloak to

dry on a convenient sunbeam. No reprimand was given that day.

Oquitoa's other well-known legend concerns a day around 1850, when the village was under attack by a mixed group of Tohono O'odham and Yaquis. The villagers defending the church were on the verge of running out of ammunition, and another determined assault would have resulted in their defeat. Suddenly, the attackers themselves fled the scene of battle. Days later, the villagers were told that the Indians left when they saw the relief column approaching. "What relief column?" "The one led by the bald-headed officer in the blue cloak," they were told. And then they understood. San Antonio, tonsured and wearing his blue Franciscan habit, had protected "his" community.

These stories are told matter-of-factly, as part of the history of Oquitoa. Folklorists would call them legends—oral narratives that are told as truth. They are also, in a sense, artifacts associated with the Oquitoa mission



Henry D. Wallace

Mission San Antonio de Oquitoa, built before 1767, is a simple hall church with a door at one end and an altar at the other. Surrounded by a cemetery, it overlooks the town from a low hill.

church. Can they tell us anything about the church and its community?

Perhaps their most important message is that they all have European antecedents. Several saints are said to have been bilocators, including St. Anthony himself; a few are believed to have hung their cloaks on sunbeams. Santiago (St. James the Greater) was seen aiding the Christian armies against the Moors at the Battle of Clavijo in 844. He performed similar feats against the Aztecs in 1520, the Acomas in 1599, and elsewhere.

In Sonora, six villages have legends concerning rescue by their patron saints. Thus, Mission San Antonio de Oquitoa, which was built as a setting for converting O'odham into Spanish Catholics, served as an entry point for more than formal doctrine. That these stories

are still told as true is an indication that a pre-Reformation world view, in which saints walk the earth and miracles are strong possibilities, has been preserved in this mission community. And that is just as exciting as finding physical traces of the colonial period.

Connecting with Mission History: SMRC and the Kino Mission Tours

*Dale S. Brenneman, Southwestern Mission Research Center and
Office of Ethnohistorical Research, Arizona State Museum*

IN THE SPRING AND FALL of each year, the Kino Mission Tours make their way south to Sonora to visit the Spanish colonial mission churches of the Pimería Alta—physical reminders of the mission system established by Father Kino three centuries ago. The buildings we see today stand in varying states of preservation, ranging from melting ruins in need of stabilization to restored archi-

tectural and artistic gems. Many continue to play an integral role in the communities that surround them. All evoke a sense of the region's historical depth and cultural richness.

The tours are sponsored by the Southwestern Mission Research Center (SMRC), a Tucson-based, volunteer-run, nonprofit organization established in 1965 by a

group of preservation advocates, including Dr. Charles Polzer, S.J. Its goal is to support and promote research, public education, and preservation of the mission history of the American Southwest and northwest Mexico. Over the course of three days, guided by scholars and enthusiasts who know and love the region, guests visit eight mission communities along the Magdalena–Altar–Concepción river drainage. They learn about the people for whom the churches were built, the impact of the missions and the priests who led them, and how Jesuits and Franciscans navigated the cultural and environmental landscapes of the Pimería Alta. They picnic at the isolated ruin of Cocóspera, pay their respects to Kino at Magdalena, explore the cemetery at Oquitoa, and lunch under the trees by the river at Tubutama. They observe the juxtaposition of the old and the new at Átil, marvel at the wall drawings of Pitiquito, share a savory backyard meal at the home of the *sacristana* at San Ignacio, and watch the glow of the sunset



A member of a Southwestern Mission Research Center tour examines some indigenous wall drawings at the church of San Diego de Pitiquito.

Tobi Taylor

on the façade of the church at Caborca. As they experience the intimacy of the churches and meet the people caring for them, they come to comprehend the importance of these structures to their communities today.

By connecting people with the history and culture of the region, the Kino Mission Tours are in themselves central to the “mission” of SMRC, but they also constitute a vital source of funding for SMRC’s other work. Income generated by the tours is used to support research and documentation projects, as well as publication costs of books about Spanish colonial history in northwest Mexico and the American Southwest. It supplements membership fees in covering publication

expenses for the *SMRC Revista* (formerly *SMRC-Newsletter*), a quarterly magazine that keeps members abreast of news and events in addition to recently published books and articles. It also assists with preservation projects, such as the binational conservation work on Cocóspera’s church ruin carried out in 1998 and 2000, and the various efforts

of the region’s townspeople to maintain and preserve their colonial churches. The churches of San Ignacio, Oquitoa, Tubutama, and Santa Ana Viejo have all benefited from SMRC funding over the years.

Those interested in learning more about the tours and/or supporting the mission of SMRC by becoming members can visit our website at www.southwestmissions.org, or contact us at (520) 621-6278 or kinotours@southwestmissions.org.

Left: At Cocóspera, scaffolding keeps the Franciscan fired-brick façade attached to the adobe walls built earlier by the Jesuits. Right: A statue of Saint Jude (San Judas Tadeo) at Tubutama.

Tobi Taylor



Tobi Taylor



Following in the Hoofprints of Father Kino

Enrique Salgado, Patronato de Kino

JOURNEYING BY HORSEBACK, a group of Father Kino's dedicated admirers have traveled along the trails followed by the Jesuit missionary through Sonora, Baja California, and Arizona. Members of Patronato de Kino have conducted nineteen *cabalgatas* (horseback trips) in the past twenty-one years. In Sonora, we have traveled all of his trails, and in the United States, we have ventured down the Camino del Diablo and the trail to San Xavier del Bac. In Baja California, we crossed the Sierra de la Giganta, starting from San Bruno. For that trip, we delivered the horses by boat.

Generally, a full week is dedicated to the trip, with five days on horseback. We attempt to cover Kino's exact route as faithfully as possible. Before each *cabalgata*, we preview the route to request permission to cross fences, always receiving support from the present inhabitants of the Pimería Alta.

The group is limited to twenty *cabalgantes*, all from different professions, united only by this single interest and the passion to follow in the tracks of the great missionary. Some of the participants have their own horses, while others rent their mounts. We rely on assistance from trucks laden with food for horses and riders. The expeditions are normally made during winter, with snow adding to the excitement of the *cabalgatas*.

Our organization is focused on promoting knowledge of Kino's image and on recovering his and his brethren's missionary zeal. The process of Kino's canonization continues in Rome, with research on Kino's life completed by the late Dr. Charles Polzer, S.J., of the Arizona State Museum. Although it is not a priority of the Patronato de Kino, we collaborate with those who are undertaking this important recognition of the indefatigable individual who brought Christianity to our homeland.

To commemorate the three hundredth anniversary of Kino's death in 2011, a discussion of several possible projects has begun, among them making the one journey that Kino was never able to complete: from the mission at Dolores, Sonora, to the mission at Loreto, Baja California.



This statue, sculpted by Julian Martinez, depicts Father Kino, an exemplary horseman.



Two riders following a trail once traveled by Father Kino.

Music of the Missions

David Shaul

A NUMBER OF MOTETS and hymns honoring the Virgin of Guadalupe were composed during the 1500s. For three years, these pieces were featured at a Guadalupe Vespers service conducted at Mission San Xavier del Bac on December 12, the feast day for the Virgin of Guadalupe.

Camerata Tucson, an early music group that I founded and directed, performed the service as a fundraiser for the mission. Vespers proper, which requires five hymns, was followed by a concert performance of colonial period Mexi-

can Christmas music.

Related to this musical effort were the historic high (sung) masses at Tumacácori, San Xavier's sister mission to the south. For ten years, a high mass was held twice a year, for Anza Days in October, and again in the spring, using period music from colonial California.

Camerata Tucson disbanded in 2002, but re-formed briefly for a special concert performed at Tumacácori for the 2008 meeting of the California Mission Studies Association.

Mission 2000

Donald T. Garate, National Park Service

FOR TWELVE YEARS, employees of Tumacácori National Historical Park have been entering mission records into a database called Mission 2000. There are currently about 28,000 people recorded in some 9,000 events in the database, which is searchable on the Internet. The system contains all the known mission records of Guevavi, Tumacácori, Calabasas, Suamca, and Cocóspera, as well as the presidial chapel records from Santa Cruz and Tubac. Many records from the missions at Magdalena, San Ignacio, Cucurpe, Caborca, Tubutama, Oquitoa, Pitiquito, and Arizpe are also included, as are various troop reviews and censuses taken over the years, some records from the Spanish communities and presidios of Santa Ana, San Miguel de Horcasitas, Fronteras, and Janos, and numerous records from various places in Spain relative to Spaniards who migrated to New Spain.

Within the database, hundreds of personal histories—some of them quite extensive—have been compiled. For example, original O’odham and Yaqui names recorded by Jesuit priests can provide information on the individual’s sex, physical characteristics, occupation, or place of origin. The database holds hundreds of these names, including such examples as Toaqui’tuoti (“Mountain Man”), Tubac’mubi (“The Woman at Tubac”), Yautmea (“Leader”), Pannabuhi (“Coyote Eye”), Cuban’to-qui (“The Mountain Freezes”), Amumea (“Hunter”), and Havanioog (“Full of Cow Bones”).

The database is also teaching us much about several inadequately understood groups. An example is the Nijoras, who, we are learning, were not simply slaves. Nijoras were almost universally Yuman-speaking peoples—generally children—captured by various tribes

and sold to the mission communities. There they were “redeemed” and raised as foster or adopted children by either mission Indians or *mestizo* (mixed-race) or Spanish residents of the area. These children can be tracked through their later marriages and deaths, and through the births of their children as they were integrated into mission/Spanish/Mexican society.

Also to be gleaned from Mission 2000 is a better understanding of the ubiquitous and recurring epidemics that devastated the New World, including measles, smallpox, and other unnamed diseases.

The Mission 2000 website can be accessed at <http://data2.itc.nps.gov/tuma/search.cfm>. Those wishing to do more in-depth research on this topic can contact Don Garate at Tumacácori National Historical Park by phone (520) 398-2341, ext. 75, or by e-mail (don_garate@nps.gov).



Don Garate, an interpretive historian at Tumacácori National Historic Park, is shown here portraying Spanish explorer and governor Juan Bautista de Anza.

Old Adobe Buildings, Speak to Me!

David Yubeta, National Park Service

MORE THAN SIXTY PERCENT of the world still lives in earthen structures. Inherent in the care and maintenance of adobe buildings is the need for annual maintenance. I have done many condition assessments of these relics, and I adhere to the words of an old friend who said, “Adobes maintain their dignity even in decay.”

Yes, old adobes speak to me. They tell me of the many damaging, triage-like treatments done to them in an attempt to lengthen the annual maintenance cycle. The old adobes say, *We need to breathe; we need to move, to dance, to twist.* They tell me of how the hurtful cement and silicoes used to repair the bases of their walls didn’t let them shed water, didn’t let them breathe. They recall the people who put Portland cement parging or *contra paredes* (also known as collars or aprons) on the walls, not realizing

that these techniques stiffen adobe. They comment on the incompatible materials—asphalt emulsions, acrylic amendments, and polyvinyl acetates—used to repair them throughout the twentieth century. And they tell me that the best way to repair the earthen substrates is to use similar and compatible materials: *If only you would use traditional materials such as lime plaster and unadulterated dirt to fix us, we would last forever.*

Yes, old adobes speak to me—and they speak to each other. They tell one another of the cities that grew around them, which in turn exposed them to the use of modern building materials to repair their tired, aging walls: *We are of the earth itself, noble and strong. We have been here thousands of years. We have endured floods and earthquakes, and with proper care will last a thousand more years.*

The TICRAT Model: A Binational Adobe Workshop

R. Brooks Jeffery, University of Arizona

TRADITIONAL BUILDING SKILLS are disappearing throughout the world. Nowhere is this more evident than in the efforts to preserve the cultural heritage defined by earthen architecture. Monuments constructed of adobe and rammed earth, when not properly preserved and maintained, are susceptible to deterioration and even collapse.

In the southwestern United States and northwest Mexico, the buildings and communities of the Spanish colonial mission era represent a defining chapter of this

In November 2008, the TICRAT model was used as a vehicle to conduct a binational adobe workshop held consecutively at Tumacácori, Arizona, and Pitiquito, Sonora, and gathering fifty participants, including NPS and INAH craftsmen and agency officials, academics, private-sector building professionals, community participants, and students from both sides of the border. The workshop consisted of a weeklong series of lectures, case studies, tours, and, most importantly, hands-on field workshops in the areas of building assessment and stabilization, adobe

brick-making, and lime plaster preparation and application. The workshop also included a bilingual roundtable discussion of current issues facing adobe conservation and the preservation of mission communities, as well as the commonalities, differences, and future trends of cultural resource management.

Mexican and American participants worked side by side in a bilingual setting, beginning at Tumacácori National Historical Park, where the workshop focused on Mission San José de Tumacácori, then traveled to Pitiquito, Sonora, and worked on the town's Edificio

Municipal. Although the intent of the workshop was to develop partnerships between Mexico and the United States, the workshop also coincided with the U.S. State Department-sponsored visit of a delegation of cultural heritage specialists from Afghanistan, who participated in all activities during the workshop, and gave a presentation about Afghan traditions of earthen architecture and discussing the challenges of preservation within a climate of conflict.

Perhaps the most important outcome of the workshop has yet to be realized. Throughout the week, videographers captured core knowledge, construction principles, and technical skills with the goal of disseminating them to a much broader audience via web-based videos in both English and Spanish. This web-based tool has been partially funded by a grant from the Southwestern Foundation for Education and Historical Preservation and will be accessible by summer 2009. For more information on the TICRAT and the larger Missions Initiative, visit www.missions.arizona.edu.



Left: Participants get their hands dirty making adobe bricks. Right: Boiling alum, which is then applied to lime plaster as a traditional waterproofing technique.

region's rich cultural heritage of earthen architecture, which is now divided by an international border. This shared cultural heritage is the focus of a multidisciplinary partnership known as the Missions Initiative and involves hundreds of Spanish colonial mission sites.

Under the administration of the University of Arizona's Preservation Studies program, representatives from the U.S. National Park Service (NPS) and Mexico's National Institute of Anthropology and History (INAH) are collaborating to protect cultural resources and promote heritage tourism through the re-establishment of historic links among Spanish colonial missions.

Since 1994, NPS and INAH have been collaborating with New Mexico-based Cornerstones Community Partnerships to conduct workshops, known as TICRATs (Taller Internacional de Conservación y Restauración de Arquitectura de Tierra, or International Workshop on the Conservation and Restoration of Earthen Architecture), disseminating adobe and plaster techniques to dozens of communities, primarily in New Mexico and Chihuahua.

The Kino Heritage Fruit Trees Project

Jesús García, Arizona-Sonora Desert Museum

FRUIT TREES represented a critical part of the fusion of cultures that took place on mission lands in the Greater Southwest. The Kino Heritage Fruit Trees Project aims to research, locate, propagate, and re-establish historically accurate fruit cultivars in our region's mission orchards. The primary goal of the project is to reintroduce Spanish-era stock into the orchard and mission gardens at Tumacácori National Historical Park, as well as the Tucson Origins Heritage Park planned at the foot of Sentinel Peak in Tucson; the latter will include the Mission Gardens, the San Agustín mission complex, and associated orchards (see pages 22–23).

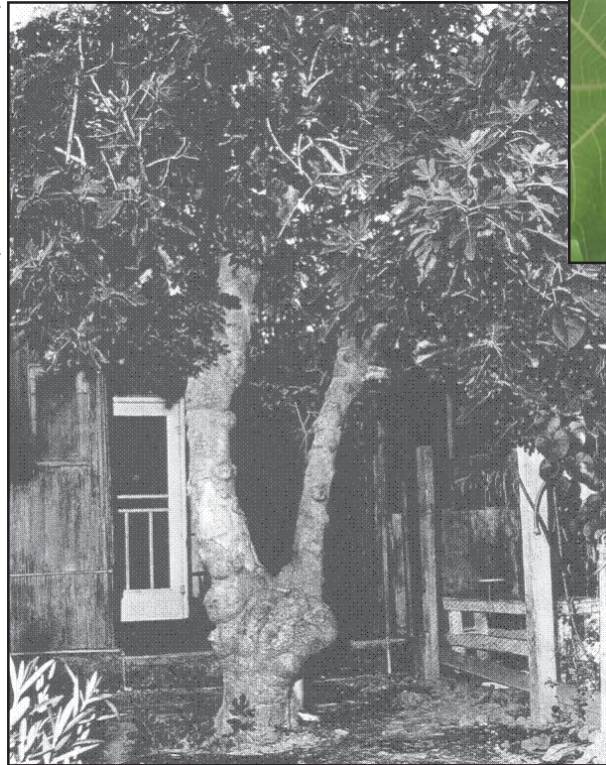
In March 2007, Tumacácori National Historical Park and the Friends of Tumacácori held a ceremony to honor the re-establishment of Tumacácori's orchard. More than sixty trees were planted, and every tree had a label with the picture of the parent tree, as well as a brief history of the family or organization that cared for it. This first planting included quinces, figs, and pomegranates.

Meanwhile, the search for heirloom trees continues in the far corners of Arizona, New Mexico, California, and the peninsula of Baja California. From a backyard in downtown Santa Fe, New Mexico, to a *cienega* (wetlands) in southern Arizona, to an oasis town in Baja California Sur, Mexico, we have been able to locate tree stock very likely brought to this region by Jesuit and Franciscan missionaries. The fact that several of these old trees are most often reproduced by cuttings leads us to believe that they are the originals, or cuttings taken from those planted by the missionaries themselves. At Harshaw, near Patagonia, Arizona, a few old pear and peach trees continue to grow. In the Atascosa Mountains, near the ghost town of Ruby, Arizona, there are a few abandoned old mining settlements, such as Oro Blanco, where a handful of white figs, pomegranates, and

pears still thrive without human help. On the north side of Mount Lemmon, north of Tucson, a mining settlement called Bonito Canyon still has a single old apricot tree, a reminder of the settlement's human occupation and the quest for gold.

South of the border, the story is somewhat different. One hour south of Nogales, Sonora, the Magdalena, San Miguel, and Sonora river valleys

Courtesy of Arizona Historical Society



Above: This 1966 photograph shows a black Mission fig tree in the backyard of the Sosa-Carrillo-Fremont house, one of the oldest residences in Tucson. The tree, which was planted sometime around 1880, is believed to be a cutting from a tree in the garden of Mission San Agustín, at the base of Sentinel Peak (see pages 22–23). This black Mission fig tree is on the National Register of Historic Trees, and usually produces two crops of large figs each year. Top right: A black Mission fig from the historic tree at the Sosa-Carrillo-Fremont house.



Jesús García

contain the remainder of the most pristine, diverse, and numerous heirloom trees introduced to the Pimería Alta by missionaries in the late 1600s and early 1700s. Farther south, toward the tip of the Baja peninsula, the small oasis towns, like San Ignacio, San Javier, and Comondú, have an even greater diversity of cultivars and more pristine specimens. Clearly, the missions, the irrigation systems, the trees, the recipes, and the people themselves are direct descendants of the Mission era.

The Arizona-Sonora Desert Museum, the Southwest Center at the

University of Arizona, Native Seeds/SEARCH, and Desert Survivors Nursery have been collaborating on recent surveys and propagation efforts. This has allowed us to collect a wealth of oral histories and photographs of the region. The stories of these trees will help visitors appreciate the connection between the Tumacácori mission site and other Kino missions of the Pimería Alta and the Greater Southwest.

Wilbur-Cruce Spanish Barb Horses

Marjorie Dixon, Dragoon Mountain Spanish Barbs

IN THE 1880s, Dr. Ruben Wilbur purchased a stallion and twenty-five mares from Juan Sepulveda, a horse trader in Magdalena, Sonora, to breed working horses for his cattle ranch near Arivaca, Arizona. What became known as the Wilbur-Cruce strain of Spanish Barbs—horses whose antecedents developed on North Africa's Barbary Coast and on the

Iberian Peninsula—is thought to be descended from horses raised by Father Kino at Rancho Dolores in Sonora. Kino provided thousands of head of livestock to Mexican settlers and Native Americans in northern Mexico and southern Arizona.

Wilbur's horses lived in a closed-herd situation on the Wilbur-Cruce Ranch until 1989, when the ranch was purchased by the Nature Conservancy. In 1990, the horses were taken off the ranch and distributed by the American Livestock Breeds Conservancy to conservation breeders who had preserved other strains of Spanish Barbs. The horses were blood typed and determined to have no Arabian or Thoroughbred markers and many Spanish Barb markers, confirming what Wilbur's daughter Eva Wilbur-Cruce



These two Wilbur-Cruce Spanish Barbs are probably descended from horses bred by Father Kino.

believed: that the horses were from the original Mission Dolores herd.

Preserved on the isolated ranch near Arivaca for more than one hundred years, Wilbur-Cruce Spanish Barbs are now bred and trained on at least thirteen ranches in Arizona, California, Colorado, Nebraska, and New Mexico. Known for its exceptional disposition, great beauty, athletic ability, and historic importance, the Wilbur-Cruce Spanish Barb is a significant part of the agricultural heritage left to us by Spanish explorers and missionaries. On our ranch in southeastern Arizona, we have nine Wilbur-Cruce mares and their foals. Visit www.spanishbarb.com/breeders/pages/dixon/.

Father Kino's Cows

Diana Hadley, Office of Ethnohistorical Research, Arizona State Museum

THE CATTLE THAT ACCOMPANIED Father Kino to the Pimería Alta were *criollos*, or “cattle of the country.” The term *criollo* could be applied to either livestock or people, and throughout the Spanish Americas it indicated that the individual was of unmixed Spanish heritage but had been born in the New World, a designation that, with time, came to have pejorative overtones. Descended from the Andalusian cattle of the southern Iberian Peninsula and ultimately from the Brown Atlas cattle of North Africa, *criollo* cattle were the only bovine livestock in the Americas for more than a century.

In November 1493, the first Andalusian cattle to arrive in the New World were unloaded onto the beaches of Hispaniola. Along with horses, sheep, and hogs, they were part of the agricultural cargo on the seventeen ships that accompanied Christopher Columbus on his second voyage. Within three decades, Hispaniola became the major export depot for shipping *criollo* cattle to the mainland. The first breeding herd reached Mexico in 1521.

The Jesuit-led ranching frontier moved northward along the Pacific coast, reaching the Pimería Baja portion of central Sonora in the 1620s. By that time the open-

range methods of grazing management imported from Andalusia were well established. *Criollo* bulls were not castrated, and herds were semi-feral. Round-ups were held twice a year for branding and slaughter or sale. *Vaqueros* were mounted and used the *garrocha* (prod) and rawhide *reata* ropes for gathering stock. In practice, the herds belonged to the missions rather than the villagers.

When Kino extended mission-based cattle ranching into the Pimería Alta from his headquarters at Dolores, he set up a management structure that encouraged greater independence among neophyte livestock raisers. He distributed livestock to mission villages, gave instructions on care, and returned occasionally to provide religious and agricultural services.

In 1692, the Sobaipuri Pimas at Santa Cruz de Gaybanipitea on the Babocómari River had 100 head of *criollos*. In 1696, the herd at nearby Quiburi mission on the San Pedro River had increased to 500 head, with an equivalent number of sheep and goats. By 1697, the Cocóspera mission had become a full-fledged stock ranch, with 500 head of cattle, as many sheep and goats, two droves of mares, a drove of horses, oxen, and crops. By 1701, Kino had established five missions with a collective herd of 4,200 head.



The Texas Longhorn shown here is a descendant of *criollo* cattle, whose antecedents came from North Africa by way of the Iberian Peninsula.

Courtesy of Wikimedia.org

The O'odham of the Pimería Alta, particularly the riverine Sobaipuri Pimas, adopted the *criollo* cattle readily. *Criollos* soon became a crucial element of mission economy, critical to the expansion of farming, transportation, and commerce. In addition to providing beef and milk products, *criollos* pulled plows and wagons, and were the source of items of utility and comfort that can hardly be imagined today—

tallow for candles, soap, and lubricants, leather for shoes, ropes, harness, furniture, door hinges, bed frames, and bindings, and bone and horn for kitchen utensils and tools.

After Kino's death in 1711, the missions of the Pimería Alta declined, and the Sonoran ranching economy became increasingly secularized, taken over not only by Spaniards but also by Pimas. Writing in May 1716, Jesuit missionary Luis Velarde noted that the Pimas had large herds of cattle, as well as sheep, goats, and horses. In the mid-1700s, *criollo* cattle became so widespread in Sonora that overpopulation devalued their price. *Criollos* remained the predominant cattle of the southwestern United States until the late 1800s, and were known in Texas as Longhorns and in Florida as Crackers. In northern Mexico, called *corriente* or "common" cattle, the *criollo* remained dominant until the early 1900s, when ranchers began to introduce bloodlines from Brahmas and northern European breeds like the Hereford and Angus.

Telling the Native Side of Mission History

Dale S. Brenneman, Office of Ethnohistorical Research, Arizona State Museum

PRESERVING MISSIONS goes well beyond bricks, mortar, and archaeology. The documentary record tells much of the story about missions in the Pimería Alta, as well as interactions between missionaries and their intended native converts. Letters, reports, and expedition diaries penned by Jesuit and Franciscan priests, Spanish military officers, and government officials record descriptions—some quite detailed—of people and events associated with the missions. Although these documents give us some insight into the cultural and physical environments in which the missions functioned, it must be borne in mind that most Native Americans did not read or write and could not similarly record their points of view.

The Office of Ethnohistorical Research, established at the Arizona State Museum by pre-eminent Kino scholar Dr. Charles Polzer, S.J., has developed an approach that attempts to counterbalance this inherent bias in Spanish documents by involving native peoples in their interpretation. Spearheading our effort is a documentary history project begun in 2000 and currently nearing completion under the direction of Thomas Sheridan (now with the University of Arizona's Southwest Center). With the collaboration of Hopi scholars and elders, *Moquis and Kastilam*—an edited collection of Spanish documents examining relations between Hopis and Castellanos, or Spaniards—will incorporate Hopi oral traditions about

Kastilam into the introductions and annotations that put the transcribed and translated documents into historical context.

We continue this collaborative approach with our more recently undertaken O'odham–Pee Posh documentary history project, which focuses on the O'odham and Pee Posh (formerly known as Maricopa) of the Pimería Alta, and, by extension, the missions established for their conversion. This history will span the time period from the earliest European encounters with O'odham and Pee Posh communities—when Father Kino first explored and mapped the region—to the incorporation of O'odham and Pee Posh territory into the United States with the Gadsden Purchase in 1854. It will encompass documents carefully selected with an eye toward O'odham–Pee Posh interaction with Spanish and Mexican people and institutions.

Representatives from the Tohono O'odham Nation Cultural Center and Museum (Himdag Ki; or “Lifeway House”) and the Cultural Affairs Program have already worked with us to identify the research goals of the Tohono O'odham community and select the documents that our bilingual graduate students are transcribing and translating into English. Himdag Ki: personnel are currently leading recorded discussions of translated documents with a group of Tohono O'odham elders. Based on those discussions, they will contribute commentary to be incorporated, at their discretion, into document annotations, introductions, or epilogues. In this



Sundown at the site of Cocóspera. Left to right: Tony Burrell, Bernard Siquieros, Felix Antone, Lea Miguel, Graciela Robinson, and Caroline Garcia. Many of the O'odham settlements described by Kino and his frequent companion, Captain Juan Mateo Manje, were located in areas outside the present borders of the Tohono O'odham Nation. Tribal elders and Himdag Ki: staff, accompanied by student interns from Tohono O'odham Community College and other interested community members, have been making road trips to look at these sites. According to Bernard Siquieros, Himdag Ki:’s curator of education, “This project benefits the O'odham in that we’re able to get an idea of landscape, and communities Kino visited in his explorations of O'odham lands. It helps us to understand how things were, past O'odham ways of doing things . . . Some of us have been aware of documents out there, but few people had access to them. It’s exciting to read them with the elders. It brings up things that go deeper than the geography, including events that are very emotional for us.”

way, the insights and oral traditions of Tohono O'odham elders and scholars will help to balance and enrich our interpretations of these documents and contribute to a better understanding of the mission system’s impact in the Pimería Alta.

The editors gratefully acknowledge the generous support of the National Historical Publications and Records Commission and the National Endowment for the Humanities.

Resurrecting Tucson’s Mission San Agustín

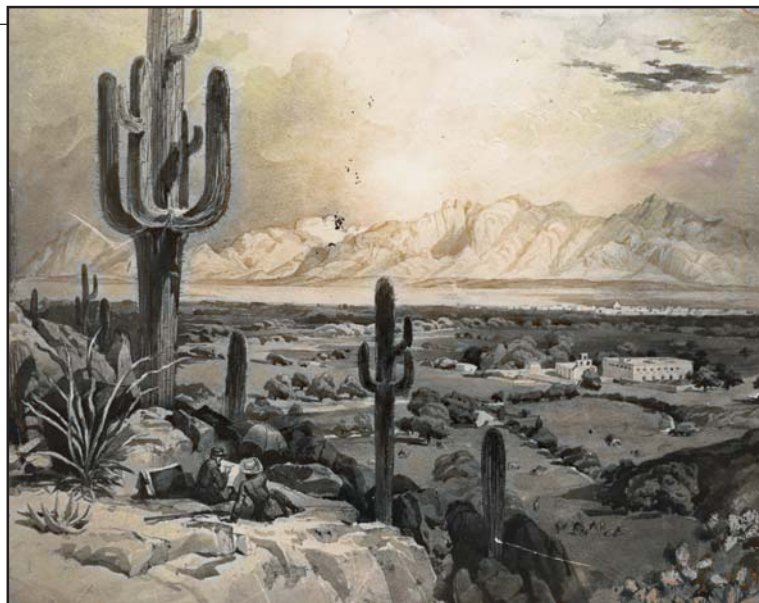
Diana Hadley, Office of Ethnohistorical Research, Arizona State Museum

THE MODERN CITY of Tucson, Arizona, sprawls for miles beyond the banks of the dry Santa Cruz River. This once-fertile floodplain, considered to be the longest continually farmed location on the continent, was the site of Tucson’s “birthplace” as a European community. Shortly after Father Eusebio Kino established San Xavier Mission at the O'odham village of Bac in 1701, he

set up a *visita* at *Tjuk shon*, a village four leagues to the north, whose Piman name indicates it was “at the foot of a black [mountain].” The Christian name for the *visita* changed—it was San Cosmé, San Agustín, and briefly, San José. But the small, dark mountain—now known as Sentinel Peak—remains today, along with the O'odham name, Tucson.

Following Kino's death in 1711, missionization efforts languished, though Jesuit priests said Mass occasionally in a brush shelter among the O'odham homes. In 1757, Father Bernard Middendorf served briefly as resident priest at San Agustín de Tucson, elevating the *visita* to mission status, until his stay was cut short by epidemics and Apache raiding. After the Jesuits' expulsion in 1767, Franciscan friars from San Xavier gradually converted the primitive walled compound into a functioning mission with a chapel, granary, and *convento*, an impressive two-story, arched residence and administrative center. The mission reached its height between 1790 and 1810, with orchards, gardens, irrigated fields, and workshops.

After Mexican independence in 1821, epidemics, Apache raids, the decline in the native population, the expulsion of Spanish-born priests, and government dissolution of the mission system led to Mission San Agustín's



In July 1852, John Russell Bartlett, a member of the U.S. Border Commission, sat on the side of Sentinel Peak and sketched the landscape below him. In the right mid-ground is the San Agustín convento and chapel. (Photograph of the original courtesy of Bernard L. Fontana.)

abandonment. Early American visitors observed that its adobe walls were melting, a process well documented between the 1870s and 1940s in dozens of photographs. Despite sporadic attempts to preserve the site, a brick company's clay pits and the city landfill ultimately consumed the crumbling walls.

Only recently, after many of the cultural remains were destroyed, did concerted preservation

efforts begin. In the past two decades, a series of archaeological excavations preceded master planning for Tucson Origins Heritage Park. Today, detailed plans for an authentically reconstructed San Agustín mission, with adobe walls and mission garden, are complete, but the project is on hold. Many community members believe that this project respects historical values and can also contribute to long-term economic viability. They are currently seeking creative ways to restart the project.

The Office of Ethnohistorical Research strives to make the Spanish documentary record accessible to students, scholars, and the public through our Documentary Relations of the Southwest (DRSW) program. Publishing documentary histories is one way of going about this. Another is our DRSW Master Index, a searchable digital index to important record groups among the voluminous Spanish and Mexican records scattered throughout archives in Mexico, the United States, Spain, and other European nations. The DRSW Master Index is now available on the Internet, and researchers can view many of the documents it covers on microfilm in our office. Visit <http://www.statemuseum.arizona.edu/oer>.

See the Center for Desert Archaeology website for more information: <<http://www.cdarc.org>>

AT THE CENTER FOR DESERT ARCHAEOLOGY, we envision a society in which the places of the past are valued as the foundations for a vibrant future. As such, it is our mission to preserve the places of our shared past. A private 501(c)(3) organization, the Center is supported through donations, memberships, and grants from individuals, foundations, and corporations. Center members receive an annual subscription to *Archaeology Southwest* and a host of other benefits. For more information or to join, contact Membership Coordinator Kate Sarther Gann at 520.882.6946, or kate@cdarc.org.

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Back Sight

THE NETWORK OF KNOWLEDGE and variety of experiences that our guest editors have assembled in this issue of *Archaeology Southwest* is remarkable. Again and again I find links to the Center's mission—"to preserve the places of our shared past."

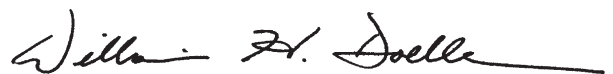
This array of articles illustrates that both intellectual and emotional experiences connect people to places of the past. In *Archaeology Southwest*, the primary vehicle by which the Center undertakes this task, we usually emphasize the intellectual context of place. However, this issue also highlights the emotional connections: three *celadoras* from Tubutama share their memories of the remarkable Franciscan priest Kieran McCarty (see page 11), Gloria Santini writes with passion about her community of Caborca and its restored mission church (see pages 12–13), and Bernard Siquieros (see page 22) recalls the emotional response of Tohono O'odham elders as they visited places described in historical documents.

The writing styles of other authors in this issue may be somewhat more restrained, but in many cases, their profession is their passion. What else could drive a Renaissance man like Bernard Fontana (see pages 4–5) to pursue in such detail history and preservation of the church at San Xavier del Bac? Similarly, David Yubeta (see page 17) is so deeply connected with adobe building material that he gives it a voice.

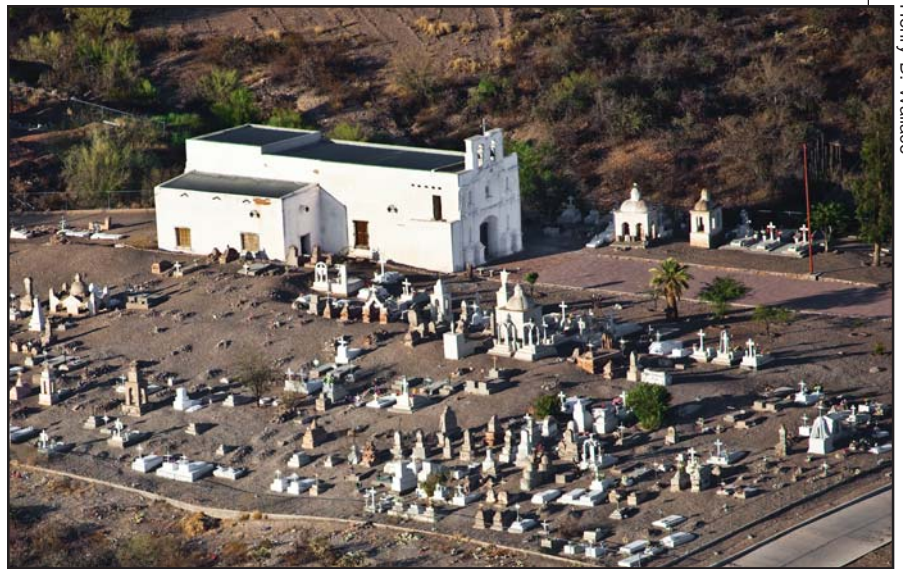
The interplay of intellect and emotion demonstrated throughout this issue is also a driving force behind the Center's current plans to greatly expand our website. We see a critical need to improve the ways that we share video, audio, and other media to allow people to more fully experience the past. Our goal is to expand access to both the intellectual *and* the emotional aspects of past places.

Web resources are invaluable tools that can engender a shared sense of understanding, feeling, and caring about past places. They can lead people to direct encounters with those places and to experiences that create an intellectual and

emotional commitment to the places of our shared past. The next step—preserving such places—also fulfills the Center's mission.



William H. Doelle, President & CEO
Center for Desert Archaeology



Overview of the church and cemetery at Oquitoa. The connections to the past are rich at both the emotional and intellectual levels.

Henry D. Wallace

back sight (băk sīt) n. 1. a reading used by surveyors to check the accuracy of their work. 2. an opportunity to reflect on and evaluate the Center for Desert Archaeology's mission.