

**Mission San José French Drain Installation Monitoring,
41BX3, San Antonio, Bexar County, Texas**

by
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Abstract

In November and December of 2006 and January of 2007, over the course of seven days The University of Texas at San Antonio-Center for Archaeological Research (UTSA-CAR), contracted by J. T. Michel, Ltd., performed archaeological monitoring on a series of trenches along the south side of the Church and past a small cemetery in front of the Church's main entrance at Mission San José y San Miguel de Aguayo (41BX3). The work was completed under Texas Antiquities Permit #4315. The Principal Investigator was Steve Tomka with Kristi M. Ulrich serving as Project Archaeologist. Archaeological monitors noted that the majority of the area had been previously disturbed, though two unique artifacts were encountered and collected. The artifacts were processed and curated according to National Park Service current standards and are housed at the Center for Archaeological Research curation facility.

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Chapter 1: Introduction

In November of 2007, J. T. Michel, Ltd. of San Antonio contracted The University of Texas at San Antonio-Center for Archaeological Research to monitor the excavations associated with the installation of moisture barriers and three drain fields along the south side of the Church at Mission San José y San Miguel de Aguayo in San Antonio, Bexar County, Texas (Figure 1-1). Over the course of seven days, monitoring was conducted of the mechanical excavations performed at Mission San José.

The drain fields were located along the south wall of the church and were connected to an existing drain inlet located west of the church via a drain pipe that runs between the existing cemetery and the church entrance (Figure 1-2). The installation of the drainage system was necessary to prevent foundation and wall damage caused by moisture rising from and through the foundation into the wall base.

The project was requested by the San Antonio Missions Historical Park due to comply with National Park Service policy for the protection of cultural resources in accordance with the cooperative agreements between the Archdiocese of San Antonio and the State of Texas/Texas Parks and Wildlife. Susan Snow, NPS archaeologist, was consulted regarding level of archaeological monitoring. The areas to be monitored during excavation for the moisture barrier, drain fields and drainage system installation were delineated in consultation with NPS. UTSA-CAR monitored two of the three drain fields. The actual barrier, drain field, and drainage system installation work was conducted by J. T. Michel, Ltd. of San Antonio. Ford, Powel and Carson, Inc. served as the prime architectural contractor, while the Center for Archaeological Research conducted the archaeological monitoring.

For the purpose of this project, archaeologically significant resources were defined as intact deposits dating to the colonial period at the mission, or any feature of unique nature that post-dated 1800. Of specific concern was the possibility of encountering human remains during the trenching in front of the main church entrance, running adjacent to the small *campo santo* present today.

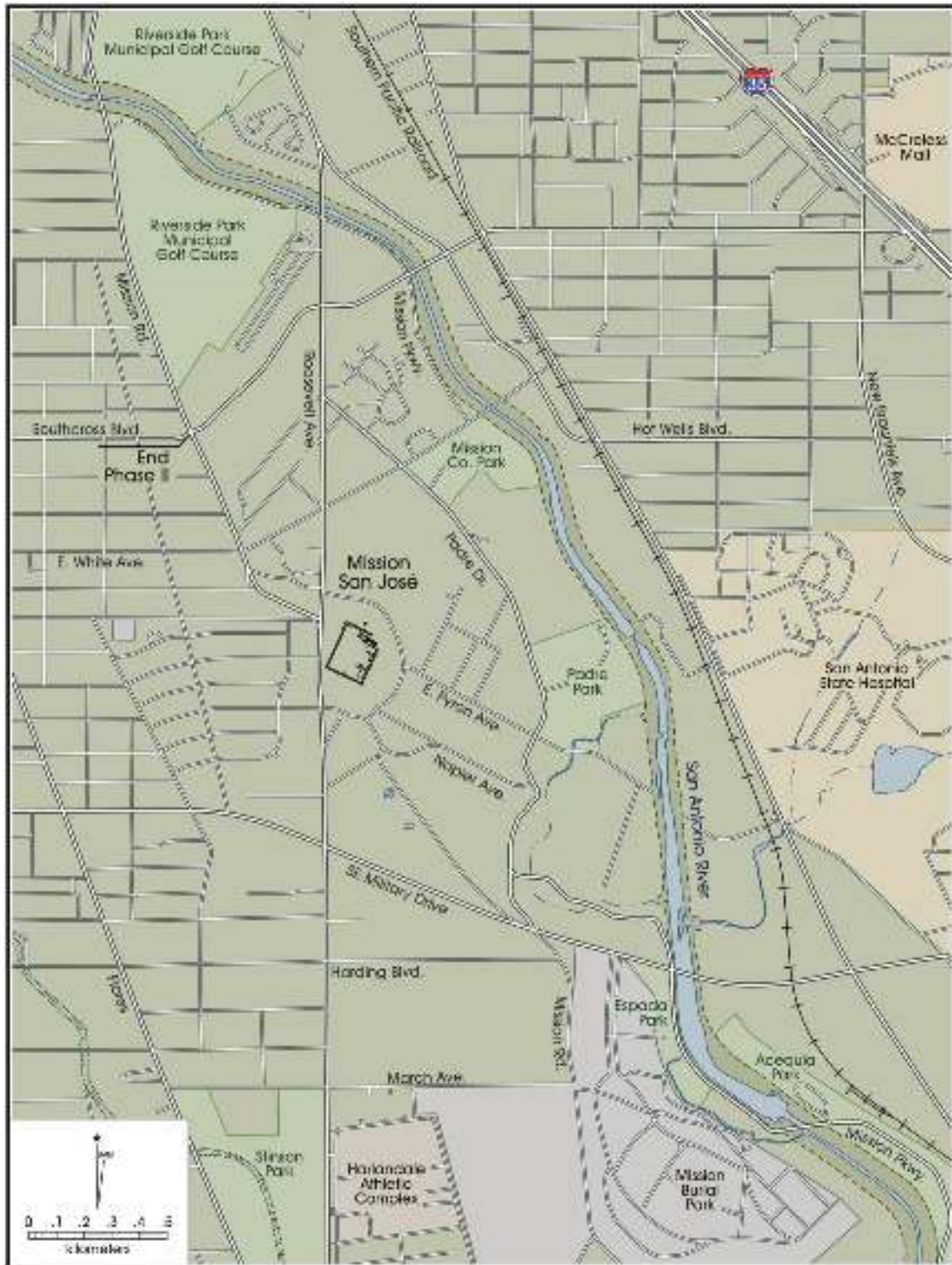


Figure 1-1. Location of Mission San José y San Miguel de Aguayo.

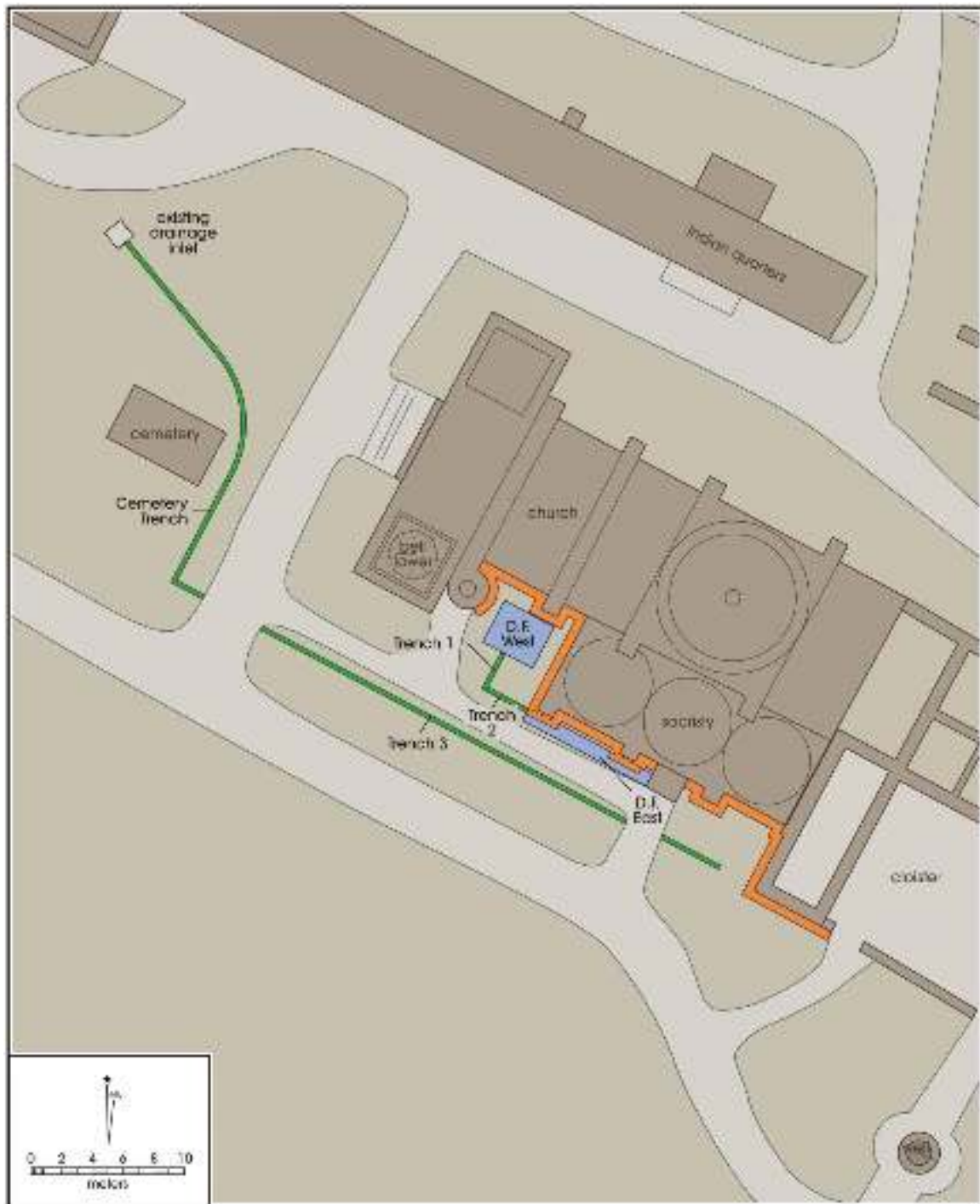


Figure 1-2. Map of the trenching at Mission San José. Orange shows trenching of foundation along church wall.

Chapter 2: Historical and Archaeological Background

Mission San José (41BX3), a National and State Historic Site, is a historically rich site located in the southern region of San Antonio, Texas. Due to its location along the west bank of the San Antonio River, it is highly likely that prehistoric occupation occurred in the area, though much of the archaeological work focused on the historic use of the site and is discussed in sections below.

Prehistoric Period

The area known today as the metropolitan city of San Antonio has been inhabited by humans for more than 10,000 years. Many prehistoric sites have been located throughout Bexar County, some dating to 9000 B.C. The prehistoric use of the area is still relatively unknown, but information can be inferred from other excavated sites around the county like 41BX917 in La Villita, where Late Prehistoric human remains were buried (Tennis 1994), and the St. Mary's Hall site (41BX229), the 1997 UTSA Field School site (Hester 1978).

Historic Period

The Historic period of Texas is marked by the arrival of the Spanish into the territory. Accounts made during these initial visits indicate many small, autonomous Native American groups inhabiting the South Texas region (Campbell and Campbell 1985). The native groups were hunters and gatherers, and may have had up to six distinct language groups. The native groups in south Texas are believed to have been Coahuiltecan-speaking groups.

Spain did little to colonize the Texas territory until the late-seventeenth century, when French encroachment into the area encouraged Spanish expansion. The expansion took the form of missions, placed along the east Texas border to act as a buffer. In 1718, the first mission was established on the San Antonio River. The first two locations of Mission San Antonio de Valero have not been identified. Mission Valero (presently know as the Alamo) was moved to its final location in 1724.

Mission San José y San Miguel de Aguayo was founded February 23, 1720. The first location was on the east bank of the San Antonio River, approximately 3.5 miles south of Mission San Antonio de Valero. The original location is believed to be the present location of Mission Concepción. By 1727, Mission San José was relocated to the west bank of the river due to the lack of suitable farming land along the eastern bank (Habig 1968b:27-33). Over the course of the next seventy years, stone buildings, including a granary, a friary, Native quarters, and a church,

were constructed. A stone wall, complete with four bastions and six gates, enclosed the mission complex by 1789 (Habig 1978).

Early reports from the missionaries indicated that the Native population grew throughout the beginning years of the mission. Within a year of the initial founding, the number of Native inhabitants numbered 227 (Habig 1968a:86). The number of permanent residents declined during the end of the eighteenth century. At the time of secularization, in 1824, only 93 individuals inhabited the mission (Habig 1968a:103).

The ensuing decades saw much political unrest. First, Mexico gained independence from Spain. Within the next several years, Texas merged into the state of Saltillo, and then became a separate department with San Antonio as the capital. In 1836, the fight for Texas independence culminated in San Antonio with the Battle of the Alamo. Shortly after the battle, Texas won its independence. Though the Republic of Texas had separated itself from Mexico, attacks by Mexican troops still occurred until Texas became part of the United States in 1844.

A lack of interest and use of the missions in San Antonio resulted in the gradual decay of the mission buildings. The north wall of the church at Mission San José collapsed due to vandalism and weathering (Habig 1968b:148). In the later years, the dome of the church collapsed, as did the spiral staircase to the church tower in 1903. The tower itself partially collapsed in 1928, after the staircase had been restored. The sacristy, adjacent to the south wall of the main church, was utilized as a chapel in the following years.

The first attempts at restoring the church at Mission San José began during the 1920s. In 1933, The Conservation Society and the Catholic Church launched a full-scale restoration of the main church (Ramsdell 1985). During the restoration efforts, workers had to dig approximately three feet below the ground surface to locate the foundations of the church walls that had all but disappeared. It appears that the sacristy was structurally sound, as no records of major renovations conducted on the walls or the roof were found (Nickels and Fox 1999:5). The church was rededicated in 1937, acquired by the State of Texas in 1941, and designated as a National Historic Site and a Texas State Historical Site during that same year (Habig 1968b:185-186). Mission San José was incorporated into the San Antonio Missions National Historic Park in 1983 (Cruz 1983).

Previous Investigations

Mission San José has undergone quite a few excavations, starting with the restoration efforts in 1932. Approximately 4,000 cubic yards were excavated to locate the foundations. Under the direction of Harvey P. Smith, the Civil Works Administration (CWA) performed much of the restoration between 1933 and 1935. Little information is known concerning what was uncovered because Smith compiled only a brief account of this work (Thurber et al. 1993:95).

In 1968, Mardith K. Schuetz of the Witte Museum conducted trench monitoring associated with the installation of a sprinkler system at the mission. Schuetz located several buried foundations within the interior of the mission complex (Schuetz 1970). The monitoring details consist of an artifact inventory and descriptions of the features unearthed during the trenching.

Daniel Fox prepared a report in 1970, summarizing several monitoring and excavation projects conducted between 1969 and 1970, for the Texas Historical Survey Committee. The monitoring and excavations were conducted prior to the installation of a sewer line, electrical lines, a drainage line from the church entrance patio, and placement of a persimmon tree. In total, four excavation units were recorded, as well as the information from the various trenches cut for the lines (Fox 1970).

Investigations along the perimeter of some of the buildings at Mission San José were conducted in 1974 by John Clark of the Texas Historical Commission. The purpose of the study was to examine the effects of climatic conditions on the architectural integrity of the structures at the site. Three excavation units were placed along the exterior of the chapel, and one was located outside of the southeast corner of the mission complex. Clark reported that Spanish Colonial deposits were encountered approximately 15 cm below surface (Clark 1978).

In 1974, proposed modifications in Rooms 31, 32, and 33 warranted the need for archaeological investigations within these rooms. During the course of this project, the backfill deposited by the Works Progress Administration was removed, and all areas to be impacted by the modifications were excavated. Excavations revealed a series of postholes inside Room 31 (Roberson and Medlin 1976). The southwest corner of the compound was examined in 1976 by the same individuals prior to the installation of a new gate.

John Clark returned with Elton Prewitt, in 1979 to test along the west wall of the granary prior to the installation of a French drain. Six units were excavated during the course of the project,

producing over 1,300 artifacts, 1,800 faunal remains, and 7 features. The features included a wall, a portion of a flagstone floor, trash pits, and a lime-filled trench (Clark and Prewitt 1979: iii).

Southwest Cultural Resources Center conducted investigations on the Arbor at Mission San José in 1981 to determine the nature of the reconstruction accomplished by the WPA. Results of the excavations indicate that the WPA placement of the walls may not be accurate due to the uncovering of several previously unknown Spanish Colonial foundations (Bradford and Traylor 1981).

Renovations inside the Church in 1981 led to investigations conducted by UTSA-CAR, contracted by Ford, Powell and Carson. A wooden platform was removed revealing loose soil. Four excavation units were placed inside of the Sacristy of the Church. The excavations produced information concerning the original construction of the Sacristy and over a hundred fragments of human skeletal remains (Nickels and Fox 1999).

Archaeologists from the Texas State Department of Highways and Public Transportation (SDHPT) conducted investigations related to the proposed improvements to Napier Avenue. Road grading exposed a series of postholes outside the south wall of the mission, a portion of the *acequia* just southeast of the mission, and a human burial near the west bank of the *acequia* (Henderson and Clark 1984). The postholes are believed to correlate with the Colonial period, though the date of the burial was undetermined.

UTSA-CAR conducted additional investigations at the mission in 1984. Prior to the installation of a sewer line, backhoe trenching was conducted outside of the west wall of the mission. During the trenching, a stone-lined well, possibly dating to 1893, was uncovered and documented. It seems the well was used, first as a well then as a privy, until 1940. CAR mitigated the feature before the sewer line was installed (Hafernik and Fox 1984).

Archaeologists from UTSA-CAR returned in 1985 to excavated one-half of the well uncovered during the prior year. A total of 26 levels were excavated inside the well, terminating at 510 cm below surface. The contents of the well consisted of eighteenth, nineteenth and twentieth century artifacts associated with the Colonial blacksmith workshop and use as a Post-Colonial privy (Fox 1987).

The proposed construction of a new Visitor's Center and adjacent parking lot led to investigations in 1991. The main goal of the project was to locate the *Acequia Madre* and to relocate the smaller

acequia that was uncovered in 1981. Archival research and subsurface investigations revealed that the small *acequia* was a lateral diverted from the *Acequia Madre* to irrigate the fields outside of the east wall. Information on both *acequias* was recorded (Fox and Cox 1991).

During the spring and summer of 1993, additional investigations were conducted by UTSA-CAR in association with the planned Visitor's Center. Testing of the areas to be impacted by construction was conducted with backhoes, shovel tests, and unit excavations. The results of the project indicated that the 1935 reconstruction took several liberties in its interpretation of how the mission looked. Apparently, during reconstruction, a gate was placed in the southeast corner of the compound, where excavations determined a wall should be. In addition, a bastion currently present at the southeast corner was not originally part of the mission design (Hard et al. 1995).

The southeast corner of the mission compound was examined again in 1996 due to the proposed installation of a storm drainage line that would aid in draining water out the of the southeast gate. The investigations included eleven excavation units, nine shovel tests, and three backhoe trenches. During the course of the project, two wall foundations dating to the Colonial period were uncovered and documented. The foundations represented a block of rooms similar to the reconstructed Native quarters along the south wall. The findings of this project cement further the idea that the reconstruction and placement of a gate at the southeast corner was done in error in 1935 (Tennis 1998).

The foundation footings along the interior and exterior walls of the Native Quarters were exposed by UTSA-CAR archaeologists, Tomka and Fox, in 1997. The purpose of the project was to determine the extent of structural deterioration along the walls. Twenty-one excavation units presented more information that the 1935 WPA restoration had placed walls in areas where they did not originally exist (Tomka and Fox 1998).

Another archaeological investigation was conducted by UTSA-CAR along the southeast corner of the mission compound in 1998. The investigation was performed prior to the installation of three catchment basins to aid in the drainage at the mission. Twenty-seven units were excavated, producing a large quantity of faunal remains. The density and continuous nature of the faunal deposits indicate that the area was possibly a midden prior to the construction of the compound wall (Tomka and Fox 1999).

Additional work within the vicinity of the southeast gate was completed by UTSA-CAR mid-1998. A series of excavations outside of the south wall and within Room 54 were conducted

during this project. The excavations were conducted to determine the extent of impact the proposed underpinning efforts would have at the southwest corner of the southeast gate. The investigations revealed that a large portion of the soil adjacent to the south wall had been previously disturbed by the WPA reconstruction, much of the soil found within Room 54 was disturbed to a depth of 19 cm below surface, and a Colonial living surface was located immediately below the disturbed soils within Room 54 (Tomka et al. 1999).

In 2001, UTSA-CAR monitored the excavation of several trenches located within the footprint of the proposed administrative building adjoining the extant chapel at Mission San José. The investigations revealed that the construction of the building would not impact pre-1930 deposits, and only encountered scattered twentieth century material (Mahoney 2001).

In 2002, UTSA-CAR monitored the removal of the old Granary Service Drive at Mission San José (Tomka 2002).

More in-depth discussions of the previous archaeological investigations can be found in each of the project reports.

Chapter 3: Field and Laboratory Methods

Field Methods

JT Michel, Ltd. contracted the Center for Archaeological Research (CAR) to conduct the archaeological monitoring of selected portions of the trenching at Mission San José as identified by the NPS archaeologist. The principal goal of the monitoring was to identify any undisturbed features that may be unearthed during the excavations. If any significant features were identified during the project, plans to redirect the route of the excavations for the drainage system would be made to preserve the features.

The installation of the moisture barriers resulted in the excavation of 1.5-foot wide trenches to a depth of about 24-inches from the base of the church wall. The construction of the three drain fields impacted rectangular areas measuring roughly 10x12 ft; 30x3 ft; and 40x30 ft to a depth of approximately 14-inches. The installation of the drainage piping required the excavation of approximately 260 linear feet of trenching. The trench was 12-inches wide and 14-inches deep. As per NPS guidance, CAR monitored the deeper excavations along the foundation of the church related to the installation of the moisture barrier and the portion of the drainage pipe trench that crossed between the cemetery and the front door of the church.

A small, tracked backhoe was utilized to excavate the soil during the course of the project. The trench along the church and sacristy walls created by the backhoe was approximately two feet wide, and five feet deep from the present surface level. Soil remaining on the foundation was removed by hand to prevent damage to the integrity of the wall by the backhoe. An archaeologist monitored all the soil removed from against the foundation and scanned the backdirt for significant artifacts.

The excavation of the trench near the cemetery was closely monitored. The trench was approximately 12-inches wide, and had a graded depth. The average depth of the trench was approximately 14-inches. Each pass of the bucket and the backdirt resulting was observed in case intact human remains were encountered. The backhoe bucket removed approximately 1 ft³ with each pass. In the case that human remains were identified, the digging was to cease, while the course of action was to be determined.

Laboratory Methods

According to the guidelines set forth at the beginning of the project, only artifacts associated with pre-1850 features or artifacts that were deemed unique were to be collected from the site. All cultural material observed in the field was assessed and recorded in the daily log. The material was then returned to the backfill. In the case that unique artifacts were located, they were to be returned to the UTSA-CAR laboratory, washed, catalogued, and curated according to current NPS/OR standards.

Chapter 4: Results of Investigations and Conclusions

Results of Investigations

Mechanical excavations at Mission San José were conducted over a period of seven days in November and December of 2006 and January of 2007. The excavations focused on three areas: (1) the exterior walls of the church and sacristy, (2) the drain fields, and (3) the trenches for the drainage of water from the drain fields (Figure 1-2).

The first areas excavated were located along the southern wall of the church and sacristy (Figure 1-2). The soil was removed to allow the foundations to be re-pointed and then protected from the damaging effects of water runoff. The soil was removed to approximately 2 ft (60 cm) below the original Church floor level, creating the need to excavated approximately 5 ft (1.5 m) below the present surface (Figure 4-1). Excavations started on the east side of the Rose Window, and immediately produced one unique artifact. Against the sacristy foundation, between the Rose Window and a buttress to the east, a 1932 Mexican Peso was uncovered. The peso was converted into a religious medallion with the addition of a loop, and carved with the image of Our Lady of Guadalupe on one side. It appears that the face side of the coin was ground down, because the letters in the words “INDEPENDENCIA Y LIBERTAD” that were stamped on the edge of the coin are shortened. The image of Our Lady of Guadalupe was soldered onto the coin, and then rays emanating from her, stars, and two rose and vine motifs were incised into the coin (Figure 4-2).

The removal of the soil along the wall of the church produced many fragments of pottery, animal bone, brick, and glass. None of these items were collected, but ceramic types were noted. The soils were mixed as was indicated by the identification of Colonial ceramics such as Puebla Blue on White Majolicas and Lead Glazed Wares mixed with Edge Decorated, Hand Painted, and Undecorated White Earthen wares that date to the late nineteenth to early twentieth centuries. Modern day trash, such as plastic straws, electrical wires, and pull tabs were also noted in the backdirt and trenches. The soils consisted of a medium brown sandy clay loam, with areas of lighter soil that contained more modern material. From the back dirt, a sandstone disk was recovered and collected. The disk measures approximately 7 cm in diameter (not shown). Stone disks have been recovered during past excavations at the mission, as well as from other Texas Missions (Personal communication Susan Snow 2006). Six stone disks were recovered from the 1984 Espada Bastion excavations conducted by Santiago Escobedo. A report for this excavation



Figure 4-1. Photograph of soil removed from exterior of Church wall, west of the Rose Window. Facing northeast.



Figure 4-2. Our Lady of Guadalupe religious medallion crafted from a 1932 Mexican Peso

was never prepared, but presently a student is preparing a small report concerning the Espada disks (Personal communication Susan Snow 2007). The use of these disks is debated, and the additional specimen will add to the catalogue.

The excavation of the Cemetery Trench, past the small cemetery in front of the church produced very few artifacts (Figure 4-3). A few bone fragments of medium to large mammals were noted, as well as a couple of fragments of brown and clear glass. At the bend in the trench, near the northeast corner of the cemetery, a fragment of a rib was identified at the bottom of the trench, approximately 35 cm below surface. This, and a few other bones recovered from the backdirt, was taken to the UTSA-CAR laboratory to determine if they were human. The trench was not extending beyond that depth, and the bone was not found in association with others, so the trenching continued down the line. One additional rib fragment was identified among the bones returned to the lab. Upon cleaning and examination with comparative materials, it was determined that the two rib fragments were human remains. The human remains were reburied in accordance with the NPS Incidental Finds Agreement with the Archdiocese and in concurrence with the Texas Historical Commission/SHPO since the land is property of the state and Archdiocese. The soils in this portion of the trench were previously disturbed, with modern material such as plastic coated wire and pull tabs noted in the backdirt.

Two of the three drainage fields excavated were monitored per NPS request. The first drainage field was located west of the Rose Window to reveal the foundation in the first stage of this project. The drainage field measured approximately 4.5-x-5.5 meters. The drainage field varied in depth from 50 cm to 1 meter. The upper 25 to 30 cm consisted of a medium brown sandy clay loam that contained less than 10% gravels. Below this soil level was a light brown sandy clay that contained fist-sized limestone rocks and ceramic tiles. Artifacts noted included lead glazed ceramics, modern glass, a complete *calcaneus* of a bovid, and several unidentified large mammal bones.

The drainage field to the east of the Rose Window was approximately 2-x-4 meters. The depth ranged from 25 to 60 cm below surface. The sediments were similar to those observed in the western field. Artifact content was similar as well, with fragments of unidentified animal bone, mixed ceramics and glass fragments.

Three segments of a trench were excavated to drain the water from the drainage fields (Figure 1-2). Trench 1 was excavated south of the western drainage field located between the church tower

and the buttress west of the Rose Window. This trench connected to Trench 2 on the north side of the cement walkway to the Rose Window. Trench 2 originated from the eastern drainage field. Trench 3 was located south of the cement walkway. A portion of the trench went under the corner of the walkway, south of the eastern drainage field. Trench 3 hooks into the previously discussed trench that runs adjacent to the small cemetery.

Trench one extended perpendicular from the western drainage field, approximately 2.7 meters south, and was 30 cm wide and 35 cm deep. Dark brown, hard packed soil made up the first 20 cm. Some of this is possibly associated with the previous excavation of the church foundation. Beneath the first 20 cm, brown moderately pack soil composed the remainder of the trench. The soil in the trench appeared disturbed, and only two fragments of large mammal bone were noted.

Trench 2 was approximately 4.4 meters long, extending perpendicular from the south end of Trench 1. The depth of Trench 2 was 35 cm. Dark brown, moderately packed soil with approximately 30% gravels extended to a depth of 25 cm below surface. Beneath this layer was a hard packed, dark brown sandy clay. No artifacts were noted during the excavation of Trench 2, and the soil appeared to be disturbed.

Trench 3 was located south of the cement walkway and connected with the trench that passed the cemetery. The trench extended east to approximately 4.3 meters east of the corner of the cement walkway. Trench 3 was excavated to an average depth of 60 cm below surface and encountered additional signs of disturbance, such as pockets of orange sand, chunks of concrete, a ceramic drain pipe, and electrical conduits. A few fragments of unidentified animal bone fragments were noted in the backdirt.



Figure 4-3. *Photograph of the trenching past the cemetery. Facing northwest.*

Conclusion

The excavation along the exterior of the south wall of the sacristy revealed that the foundation extended to a depth of 80 to 100 cm below the current surface level. Along the exterior of the south wall of the Church, it appears that the foundation extends to approximately 1.5 m below the surface. Results of the trenching indicate that much of the area has been previously disturbed, with mixed soils and eighteenth to twentieth century artifacts. Common cultural remains encountered included fragments of ceramic, glass, brick, concrete and unidentified mammal bone. No concentrations of artifacts were notes within the material scattered throughout the areas investigated. Two artifacts were collected and are stored at the UTSA-CAR laboratory according to NPS guidelines. Fragments of human remains were identified in the laboratory and subsequently reburied in the trench where they were found.

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