MUSEUM OF NEW MEXICO

OFFICE OF ARCHAEOLOGICAL STUDIES

Results of a Monitoring Program for CenturyLink, Inc., Along East Palace Avenue and Marian Hall, City of Santa Fe, Santa Fe County, New Mexico

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Administrative Summary

The Office of Archaeological Studies (OAS), Department of Cultural Affairs, Museum of New Mexico, conducted an archaeological monitoring project for CenturyLink, Inc., which included the burial of telecommunications line along east East Palace Avenue and the excavation of a bore hole on a parcel of private property managed by Drury Hotels, Inc., in the Historic Santa Fe Downtown Archaeological District.

The utility trench was designed to contain a new fiber optic line and was installed above a preexisting fiber optic utility. The test pit was excavated by OAS in advance of underground fiber optic connections designed to supply the proposed Drury Hotel with telecommunication services. Along East Palace Avenue, the trench was 122 ft east–west, approximately 18 inches wide and varied between 3 ft and 6 ft deep. At the east end of the trench on Palace Avenue, the route of the proposed utility trench turned to the south to pass under a sidewalk and wall on the north side of Marian Hall into the bore hole excavation. The bore hole measured 5 ft east-to-west and 5 ft north-to-south and was designed to house a connector box. This bore hole, adjacent to the northwest corner of Marian Hall, was excavated by the OAS archaeological crew to facilitate mechanical boring under the wall and sidewalk separating Cathedral Park from Palace Avenue.

Since the City of Santa Fe is a subdivision of the State of New Mexico, NMAC 4.10.17 Standards for Monitoring apply to the project. This project also complies with the provisions set forth in Section 106 of the National Historic Preservation Act (36 CFR 800), Executive Order 11593 (1972), the National Environmental Policy Act of 1969 (91 Stat. 852), and the State Cultural Properties Act of 1969 (as amended). In addition, the scope and objectives of the project conform to the guidelines contained in Section 18-6-5 (NMSA 1978) of the Cultural Properties Act (4.10.16.13 NMAC-N, January 1, 2006).

Scattered turn-of-the century Euroamerican and native artifacts were present along a one-hundred foot section of the trench where it paralleled Sena Plaza to the south. Cultural materials from the bore hole consisted of 1950s construction debris and materials similar to those encountered in the utility trench, e.g., a dispersed scatter of historic Euroamerican and native ceramic, lithic, ground stone, and faunal artifacts dating to between the thirteenth and eighteenth centuries. A feature was encountered in the bore hole. This consisted of a parallel row of bricks representing a landscaping detail either associated with the 1880s "sanatorium" or the turn-of-the-twentieth-century convent/dormitory component of Marian Hall. The feature was investigated and documented, and CenturyLink proceeded to install the conduits for a fiber optic connection leading to the proposed Drury Hotel.

Once the deliverables assigned to the fieldwork portion of the project were completed by OAS, CenturyLink, Inc., completed its undertaking.

CenturyLink, Inc., Project No. 12521PK
NMCRIS No. 123177
MNM Project No. 41.940
New Mexico General Archaeological
Investigation Permit NM-11-027-M

Contents

Figures

Tables

Introduction

At the request of Jim Wofford, Construction Project Manager for CenturyLink, Inc. (formerly Qwest Communications), the Office of Archaeological Studies (OAS), Department of Cultural Affairs, Santa Fe, undertook a monitoring and excavation project between February 17 and February 23, 2012. The undertaking was for the purpose of installing a new telecommunications line (CenturyLink Project No. 12521PK) by excavating a utility corridor (trench) along East Palace Avenue and a pit to facilitate underground boring in a parcel of private property owned by Drury Hotels, Inc., within the Historic Downtown Archaeological District of Santa Fe, New Mexico (Figs. 1, 2). The purpose of this study was to determine if significant buried cultural deposits were present within the proposed utility trench and bore hole location, and to determine the nature and extent of such resources.

As stipulated in the City of Santa Fe Ordinance 14-75.11 Section D, archaeological treatment is required for new construction of utility mains greater than 60 ft in length. As the length of the proposed trench is approximately 122 ft, CenturyLink requested that OAS monitor its activities. Since the City of Santa Fe is a subdivision of the State of New Mexico, NMAC 4.10.17 Standards for Monitoring applied to the project.

The utility trench was monitored for a total of 37.5 hours, the excavation of the pit also took 37.5 hours, and extra monitoring for the installation of the utility conduits took 8 hours. A total of 0.02 acres were hand- and mechanically excavated. Apart from scattered artifacts lacking contextual integrity, no intact cultural resources were encountered.

Miscellaneous artifacts were present for about 100 ft of the trench, especially where it paralleled Sena Plaza. These consisted of bone, ceramics (both native and historic), and glass and metal dating from the seventeenth century to the turn-of-the-twentieth-century, with a light scatter of thirteenth- and fourteenth-century prehistoric native materials and two historic period strike-a-lights. Artifacts from the bore hole consisted of 1950s construction debris, native ceramics dating to the seventeenth and eighteenth centuries, and Euroamerican ceramics, metal, glass, and bricks from the late nineteenth and early twentieth centuries. A feature was encountered at 60 cm below the present ground surface; it consisted of a parallel row of bricks, representing an 1880s or turn-of-the-twentieth-century landscaping detail.

OAS personnel consisted of Stephen Lentz, Richard Montoya, Gavin Bird, Guadalupe Martinez, and Vernon Foster. Dr. Robert Dello-Russo was the principal investigator. Scott Jaquith prepared the graphics, and Lynne Arany edited the text. Our thanks to Bob Mizerak who volunteered to keep the screen moving on the coldest day of the year.

Marian Hall is not a registered property although it has the potential to be eligible for inclusion in the National Register of Historic Places and to the State Register of Cultural Properties under Criterion D: "*Properties are eligible for the National Register if they have yielded, or are likely to yield, information important to prehistory or history*" (National Register Bulletin 15, U.S. Department of the Interior, Washington, D.C. 1982:21).

Methods

The monitoring of mechanically exposed areas includes hand-scraping sections of excavated trench walls to examine and document stratigraphy and subsurface deposits. Because of prior disturbance, it was expected that intact cultural deposits would be absent or limited to a narrow range of manifestations. Scattered cultural materials were present and their presence entailed detailed recording and mapping, including limited hand excavation, screening of cultural deposits, and the recovery of artifacts. Since the mechanical excavations took place within a previously disturbed utility trench, this precluded in situ deposits and limited discoveries to redeposited artifacts from previous excavations. Thus, the level of documentation, archival research, and reporting was adjusted to the nature and condition of the discoveries. Laboratory analysis of recovered artifacts and samples, report preparation, inter-

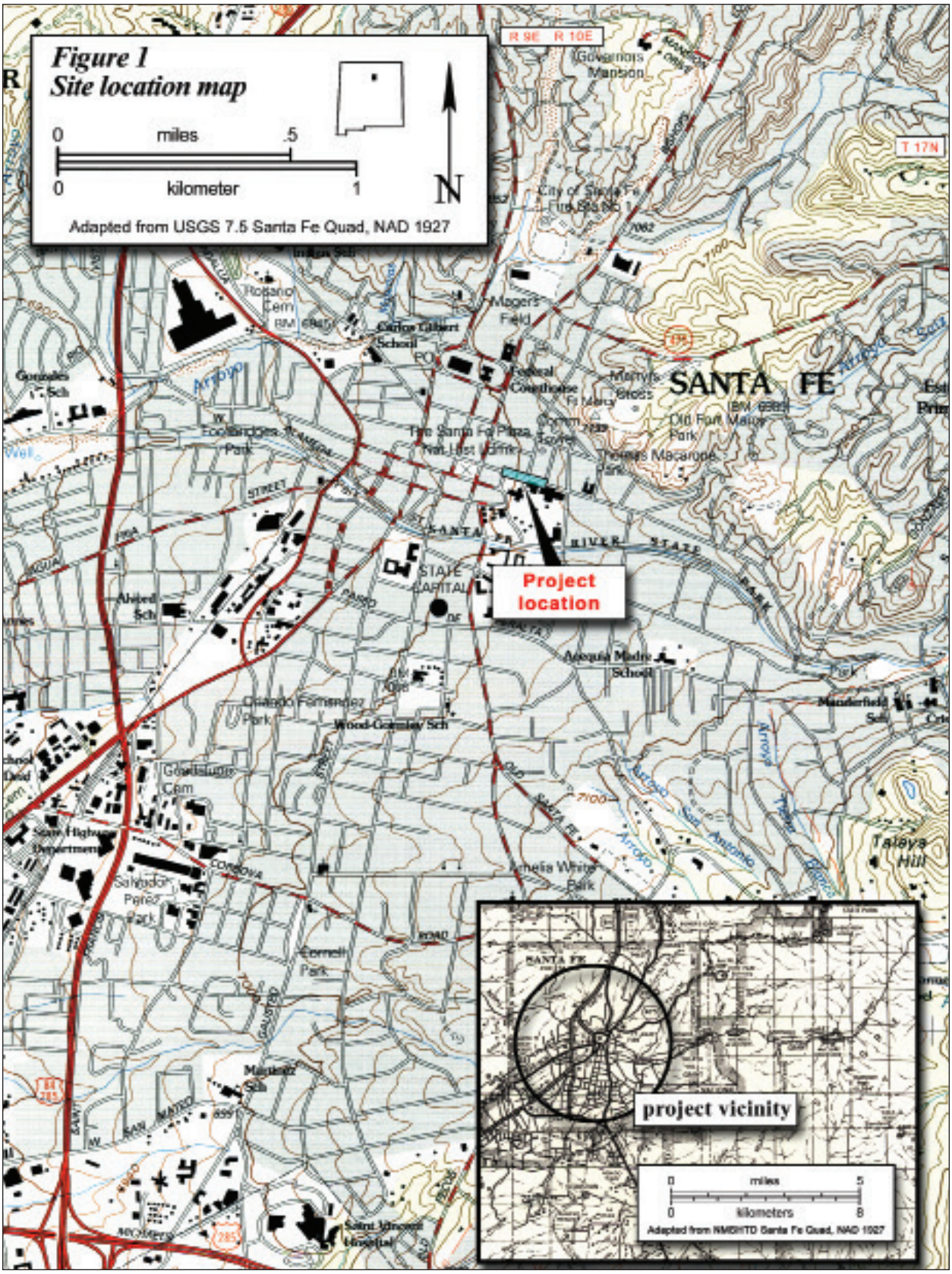

Figure 1. Site location and Project Vicinity map.

Figure 2. Location of project area.

pretation and recommendations immediately followed the completion of fieldwork.

During the monitoring activity, features and cultural deposits were documented and reported in conformance with standard monitoring methodology (outlined below; see also Lakatos 2008).

Following are the standard procedures approved by the New Mexico Historic Preservation Division (HPD) and the City of Santa Fe Archaeological Review Committee (ARC) for a monitoring project:

(1) The archaeologist monitoring the excavations of a backhoe trench will opportunistically collect and document functionally or temporally diagnostic artifacts from trench backdirt as they are observed.

(2) The stratigraphic character and cultural content of each backhoe trench will be documented on a standardized excavation form. Artifacts found in situ in trench walls may be point-provenienced.

(3) Trenches will be mechanically backfilled as soon as practical after documentation is complete.

(4) Information recorded for the walls of a backhoe trench or any other excavation shall include: sediment descriptions based on Munsell Color Chart specifications and using standard geomorphological descriptors; notes on artifact variety and frequency; evidence of disturbance; horizontal and vertical locations and associations; excavation techniques; and temporal associations. Written descriptions will be recorded on standardized forms. All profile or elevation drawings will include a scale, north arrow, and key to abbreviations and symbols. Trench locations will be plotted using Global Position Systems (GPS) coordinates and shown on an aerial photograph, topographic map, and other graphics related to the project.

(5) Excavation records will include photographs of the trench and exposed cross-sections of cultural features and deposits. Photographs shall include a metric scale, north arrow, and label board with the project name, feature number, and date.

(6) At the completion of the project, the OAS will produce a final synthetic report in its *Archaeology Notes* series on the results of the monitoring. This report will include a cultural historical and interpretive context, a description of the subsurface stratigraphy consisting of natural and cultural layers, descriptions of any features or archaeological sites that are defined as a result of the monitoring, a report on any artifact analysis that is required, conclusions and interpretations, and significance determinations and recommendations for any cultural resources that are encountered. The final report will be professionally edited and illustrated and will fulfill the requirements of NMAC 4.10.17 Standards for Monitoring. Archaeological monitoring on private land will be subject to the City of Santa Fe Historic Downtown District provisions of Chapter 14.3-13 Archaeological Clearance Permits. All artifacts recovered during the investigation will be catalogued, processed, and submitted for permanent curation at the Archaeological Research Collections Unit of the Museum of Indian Arts and Culture in Santa Fe.

(7) Finally, a draft copy of the report will be submitted for review and comment to the client, HPD, and ARC. The report will be completed in a timely fashion following completion of the fieldwork. Once all review comments have been submitted, sufficient copies of the final report will be produced to fulfill the client's distribution needs and statutory requirements.

Previous Archaeological Findings and National and State Register Resources in the Vicinity of the Project Area

The CenturyLink East Palace Avenue project area is located in the Santa Fe Downtown and Eastside Historic District, east of the plaza. The Santa Fe Plaza (LA 80000) and the Palace of the Governors have already been designated National Historic Landmarks (National Register October 15, 1966, HPD 87829). Several other structures near the project area are also eligible for both the State Register of Historic Places (SRHP) and National Register of Historic Places (NRHP), including Marian Hall, which was designed by Isaac Rapp, and St. Vincent Hospital, which was designed by John Gaw Meem. These properties are described in the following section.

The CenturyLink East Palace Avenue project area is in proximity of the following previously documented cultural resources:

La Conquistadora Chapel (LA 8770). La Conquistadora (SR 88) and La Conquistadora Chapel (SR 141) were included on the State Register of Historic Places on April 4, 1971. The statue of La Conquistadora (also known as Nuestra Señora de la Paz) may be the oldest Marian figure in the United States. It was brought to New Mexico by Fray Alonzo de Benavides in 1625 when he assumed the position of Custodian of the Franciscans in the province (C. T. Snow 2010:147–161). Carried to Mexico in 1680 by refugees fleeing the Pueblo Revolt, La Conquistadora was returned to Santa Fe by Diego de Vargas in 1692–1693. Considered by Vargas to be his personal saint, he vowed to build a church for the figure, but he died before he was able to fulfill his promise. Eight years after Vargas' death in 1704, the residents of Santa Fe rallied to replace the parish church, or *parroquia,* that had been destroyed during the Pueblo Revolt. At the same time, a decision was made to build a special chapel specifically for La Conquistadora. The new church and chapel were started in 1712 and dedicated in 1717. Although both the Conquistadora Chapel and the figure of La Conquistadora have been greatly modified over the centuries, they remain the spirit of Santa Fe.

Prince Plaza, located at 107–117 East Palace Avenue. The location was placed on the State Register of Historic Places on April 4, 1971.

525 East Palace Avenue, the Old County Courthouse. This property was listed on the State Register of Historic Places on September 19, 1989.

St. Francis Cathedral (LA 9077). Between 1869 and 1884, Archbishop Lamy built the Santa Fe Cathedral by enclosing the existing parroquia with walls of local limestone.

Spiegelberg-Spitz House (LA 70092), located at 327 East Palace Avenue, was listed on the State Register of Historic Places on November 20, 1971, and on the National Register of Historic Places on May 25, 1973. One of the first houses to be constructed along the east side of Santa Fe's *cienega* (marsh) was the Spiegelberg-Spitz House. In the early 1880s, while Willi Spiegelberg was engaged in building a new home for his family, he and his brothers were also involved in construction of their new store on the south side of the plaza. The store was located immediately east of the site of the former Spanish military chapel, La Castrense. An article in the *New Mexican* for 1881 reports:

> The excavations preparatory to building the foundation for the Spiegelberg Bros. new store on San Francisco Street have commenced. The old building was formerly occupied as a soldier's chapel and a part of the lot was used as a burial ground, which fact old residents remember, the chapel having been in use as late as 1857. Consequently it is expected that the excavation now in progress may bring to light some remains of the departed soldiers which have not seen the light for nearly a century perhaps. Mr. Willi Spiegelberg has told Archbishop Lamy that in such a case he will have such remains preserved and properly interred. As yet, however, no discoveries have been made." —*Daily New Mexican*, March 12, 1881

Subsequently, an unknown number of burials were uncovered during the excavation of the

basement of Spiegelberg; they were turned over to Archbishop Lamy for reburial along the north side of the cathedral then under construction. The remaining excavated fill was dumped along East Palace Avenue, presumably in front of the new Spiegelberg house, to fill in the cienega (Purdy 1972a).

La Fonda Hotel (LA 54000). In the seventeenth century, an inn existed at this location. Over the years the hotel was destroyed and re-built several times. In 1821, when Captain William Becknell first travelled along what would become the Santa Fe Trail, he stayed at the La Fonda Hotel next to the plaza, where the overland route from Missouri ended. As more and more pioneers traveled the Santa Fe Trail, the La Fonda Hotel became a popular destination for trappers, traders, mountain men, soldiers, and politicians. Soon after New Mexico became a U.S. Territory in 1848, the inn was purchased by Anglo-American owners who changed its name to the U.S. Hotel. Around this same time, the hotel was sold again and became the Exchange Hotel, the name under which it operated for nearly six decades. The current La Fonda was built in 1922 on the site of the previous inns. In 1925 it was acquired by the Atchison, Topeka & Santa Fe Railway, which leased it to Fred Harvey. For more than 40 years, from 1926 to 1968, La Fonda was one of the hotels in the famous chain known as the Harvey Houses.

Sena Plaza. This property was listed on the State Register on December 20, 1968, and on the NRHP on October 15, 1966. After the Pueblo Revolt of 1680, Alfrez Diego de Guiros received the parcel of land as a reward for his assistance in the re-conquest of Santa Fe, and built a small adobe structure there. In 1796, while Santa Fe was still a part of Spain, the successful merchant Don Juan Sena and his wife came into possession of the land. In the 1830s, when Santa Fe was part of Mexico, Don Juan and his son, Major Jose Sena, started building the structure that exists today. Eventually the family added 33 Territorial-style rooms.

La Posada Hotel/Staab House (LA 129141). Abraham Staab built this mansion for his wife, Julia, from the fortune he made as a supply contractor for the U.S. Army during the Civil War. It was considered one of the most lavish homes of the times, with the finest of European furnishings and a grand ballroom on the third floor. Julia Staab became reclusive until her death at age 52 in 1896. In the early 1900s, the ballroom was destroyed by fire, and in 1913, Abraham Staab died. The Nason family bought the property in the 1930s and opened the La Posada Hotel.

LA 138659. The site was excavated by David Snow for Cross-Cultural Resource Systems and may be the *camposanto* (cemetery) associated with St. Francis Cathedral. However, there is little information available in the NMCRIS files.

LA 155963 was documented during an archaeological project undertaken for the Archdiocese of Santa Fe by Zia Engineering and Environmental Construction in the vicinity of Archbishop Lamy's nineteenth-century carp ponds. The project was never completed, and no information on this activity is available from NMCRIS.

LA 161535. At this site, archaeological deposits have been previously documented by the OAS during the Drury Project (Moore 2009). To the west, south, and southeast of the Marian Hall area, testing and data recovery programs revealed the presence of historic archaeological remains dating to the seventeenth and late nineteenth to early twentieth centuries. Seventeenth-century features include a partly intact trash midden overlying a cobble pavement. This layer was thought to represent a cobble surface, possibly an early pathway, with a spatially discrete and possibly related stratum containing seventeenth-century artifacts. The site is not currently shown on the NMCRIS map (Appendix).

Marian Hall (LA 161535) was built as a sanatorium for tubercular patients by the Sisters of Charity in Santa Fe in 1878–1882, but burned in 1896. The present structure, once operated by the Sisters of Charity, was constructed in 1910–1911 based on a design by Isaac Hamilton Rapp.

Old Federal Building *(no LA number listed in the NMCRIS files)*. This property was included on the State Register (SR 874), June 4, 1982, and the

NRHP on August 15, 1974. The building is located on the corner of present East Palace Avenue and Cathedral Place and now houses the IAIA Museum of Contemporary Indian Art. The building, completed in 1922, occupies the entire width of the block between East Palace Avenue and San Francisco Street and faces the area known as Cathedral Park, once the entrance to the first hospital in Santa Fe. The Old Federal Building was the former site of a convent once used by the Sisters of Loretto and other orders during the mid-nineteenth century while their schools and dormitories were under construction. The Old Federal Building replaced the former post office and served as Santa Fe's main post office until the present post office was constructed in the 1960s between Paseo de Peralta and South Federal Place (SR 874 Files, Historic Preservation Division).

U.S. Courthouse and the Federal Oval (LA 144261). The U.S. Courthouse is a NRHP property. Federal funds for a capitol building were appropriated in 1851, 1854, and 1886. In 1889, the structure was completed during the tenure of Chief Justice Joab Houghton. It is a three-story Greek Revival stone building with an 1929 addition on the north (Purdy 1972b; National Register of Historic Places, U.S. Department of the Interior, Washington, D.C.). In 1882, in an attempt to improve Santa Fe's economy, the town fathers created a fictitious celebration, the Tertio-Millennial. Designed not only to promote Santa Fe, but the entire territory, the Tertio-Millennial, which opened July 2, 1883, purported to celebrate the 333rd anniversary of the founding of the city in 1550. The present Federal Oval on Federal Place and Paso de Peralta was turned into a racetrack that surrounded a large exposition hall and is currently the site of Santa Fe's main post office. The gala, which went on for 33 days, included speeches, fancy balls, reenactments of the settling of New Mexico, parades, and numerous Indian dances. More than a thousand Pueblo, Navajo, Ute, and Apache Native Americans participated in the event and were housed in the roofless capitol building. A Zuni chief, with early ethnologist Frank Cushing as interpreter, narrated the tribal tradition of the coming of the white man. The chief of the Mescalero Apaches explained in a speech that not all of his people could attend the celebration because some of them were out fighting the U.S. Army (Ellis 1958:129). This was said when Fort Marcy, a major Southwest military post which provided troops for the "Indian wars" was literally across the street. Although not nearly as successful as its sponsors had hoped, the Tertio-Millennial made Santa Fe a tourist destination (La Farge 1985:120–121; Twitchell 2007:401–403).

Fort Marcy (LA 1051). Fort Marcy was the first Army Post in New Mexico. It was built on the ruins of the old Spanish presidio shortly after August 24, 1846, soon after general Kearny occupied Santa Fe and declared it a Territory of the United States. The Treaty of Guadalupe Hidalgo, signed on March 25, 1848, made Fort Marcy and the Mexican province of New Mexico the territory of the United States. Under U.S. jurisdiction, Fort Marcy became headquarters of the 9th Military Department, later to be known as the Department of New Mexico, which encompassed the present day states of New Mexico and Arizona. In 1852, construction began on the new capitol building (the U.S. Courthouse, see above) located at the northern end of Fort Marcy ostensibly to replace the antiquated Palace of the Governors. Between March 10 and April 10, 1862, Fort Marcy was occupied by Confederate forces. In September of 1862, Kit Carson and five companies of the 1st New Mexico Cavalry were sent from Fort Marcy to reactivate Fort Stanton and pacify the Mescalero Apaches. In January 1864 Kit Carson commanded a force that rode into Canyon de Chelly, killing Navajo men, women, and children, and burning hogans, crops, orchards, and livestock. The outbreak of the Spanish-American war on April 25, 1898, further reinforced the use of the fort by U.S. Army troops when Governor Miguel Otero called for volunteers for a cavalry regiment that would become known as Theodore Roosevelt's Rough Riders. On October 10, 1864, the departure of the 10th Infantry marked the abandonment of Fort Marcy by the U.S. Army, and the post was officially decommissioned on June 15, 1895 (Barbour 2011).

Old St. Vincent Hospital (LA 161535). Construction on the first St. Vincent Hospital began in 1878 under Sister Blandina. Originally intended as an industrial school for boys (probably Marian Hall),

by 1880 Archbishop Lamy decided it would be a hospital instead. In 1885, another hospital was constructed along Palace Avenue east of Marian Hall and was named St. Vincent Hospital (Fig. 3). In 1953, the well-known Santa Fe architect John Gaw Meem designed a new hospital that was then built on the 1885 foundation. Constructed in a quasi-Territorial style, the facility was operated by the Sisters of Charity until 1977, when it was moved to St. Michael's Drive. Shortly thereafter, the Meem-designed hospital was purchased by the State of New Mexico for use as an office building that would share space with Presbyterian Medical Services (Smith 1977). The structure was subsequently purchased by Drury Hotels, Inc., and is scheduled to be converted into a hotel.

Figure 3. St. Vincent Hospital, ca. 1880.

Environment

Physiography

Santa Fe is located in a fault-zone feature within the a structural subdivision of the Southern Rocky Mountain physiographic zone known as the Española Basin, one in a chain of six or seven basins comprising the Rio Grande rift, which extends from southern Colorado to southern New Mexico (Kelley 1979:281). This basin, which is considered an extension of the Southern Rocky Mountain Province (Fenneman 1931), is enclosed by uplands of alternating mountain ranges and uplifted plateaus; the Rio Grande flows along the long axis of the feature (Kelley 1979:281). The northern boundary of the Española Basin is composed of the eroded edge of the Taos Plateau. The Sangre de Cristo Mountains form the eastern edge, and the southern boundary is marked by the Cerrillos Hills and the northern edge of the Galisteo Basin. The La Bajada fault escarpment and the Cerros del Rio volcanic hills denote the southwestern periphery. The Española Basin is bounded to the west by the Jemez volcanic field, and the Brazos and Tusas Mountains form the northwestern boundary. Elevations along the Rio Grande through the basin vary from 1,845 m in the north to 1,616 m in the south, and altitudes in the surrounding mountains reach 3,994 m in the Sangre de Cristos, 3,522 m in the Jemez Mountains and 2,623 m in the Brazos and Tusas (Kelley 1979:281).

Local topography alternates among nearly level plains, rolling terraces, and steep, rocky slopes. The main tributary drainage is the Santa Fe River. Other major tributary drainages include Arroyo de la Piedra, Arroyo Ranchito, and Arroyo Barranca, among others. These tributaries have wide, level floodplains, while smaller tributary arroyos have cut deeply into the alluvial plain. Much of the riparian zone adjacent to the Santa Fe River has deposited rich soils that are ideal for agriculture.

Geology

The Rio Grande rift was established during the late Oligocene epoch (ca. 30 million years BP) when a cycle of down-warping and extensional faulting succeeded a period of regional uplift (Kelley 1979:281). As the subsidence of the Española Basin proceeded through the Miocene and Pliocene epochs (ca. 3 to 25 million years ago), erosion from the Nacimiento, Jemez, and Brazos uplifts to the north and northwest, and the Laramide Sangre de Cristo uplift to the east and northeast provided most of the sediments for what is known as the Santa Fe group, the prominent geologic unit within the Española Basin (Folks 1975). Formations within the Santa Fe group, such as the Tesuque Formation, consist of deep deposits (over 1 km thick) of poorly consolidated sands, gravels and conglomerates, mudstones, siltstones, and volcanic ash beds (Folks 1975; Lucas 1984).

Alluvial deposits of ancient and modern gravels are found in arroyos and on adjacent terraces. Tertiary volcanic deposits, Cenozoic sediments, and Precambrian rock are exposed in surrounding areas. When combined with these alluvial deposits, they provide most of the materials needed for flaked stone artifact production. In particular, chert is available in the Ancha formation (Kelley 1979:11–12), and sandstone, siltstone, andesite, basalt, and silicified wood occur in other nearby formations. The most commonly used chert in the study area outcrops in the Madera limestone formation and occurs in local gravel deposits. Small amounts of obsidian are found scattered along the basalt-capped mesas to the west of Santa Fe (Kelley 1979:12). A detailed soil map shows that the project area is dominated by the Bluewing Series (Folks 1975:15-16), much of which consists of level to gently sloping terrace soils of gravelly sandy loam.The project area is located at an elevation of 6,990 ft (2,130.5 m).

Climate

Santa Fe has a semi-arid climate. Latitude and altitude are the two basic determinants of temperature; however, altitude is the more powerful variable in New Mexico (Tuan et al. 1973). In general, mean temperatures decline faster with increased elevation than with increased latitude. Cold air drainage is a common and well-known feature of New Mexico valleys (Tuan et al. 1973). Narrow valleys create their own temperature regimes by channeling air flow: the usual patterns are warm up-valley winds during the day and cool down-valley winds at night. In contrast, shifts in temperature over broad valley floors are influenced by the local relief (Tuan et al. 1973).

The Santa Fe weather station is at an elevation of 2,195 m. The mean annual temperature reported by the station is 48.6–49.3 degrees Celsius (Gabin and Lesperance 1977). The climatological data further indicate that the study area conforms to the general temperature regime of New Mexico; that is, hot summers and relatively cool winters.

The average frost-free period (growing season) at Santa Fe is 164 days. The earliest and latest recorded frosts are September 12 (in 1898) and May 31 (in 1877) (Reynolds 1956:251). Although a frost-free season of 130 days is sufficiently long to allow the growing of most indigenous varieties of maize through dry farming (Schoenwetter and Dittert 1968; Hack 1942), the unpredictability of late spring and early fall frosts creates agricultural risk.

Precipitation for Santa Fe can fluctuate widely. A maximum of 630 mm of precipitation was recorded in Santa Fe in 1855, compared to a minimum of 128 mm in 1917 (Reynolds 1956). The amount of precipitation is even more variable for any given month in successive years. Late summer is the wettest season in the annual cycle of the Santa Fe area, whereas June is one of the driest months. Precipitation records from Santa Fe indicate that more than 45 percent of the mean annual precipitation falls between July and September (Gabin and Lesperance 1977). Although October is drier than September, it is nevertheless, the fourth wettest month of the annual cycle. Significant precipitation (7.6 percent of the annual total) also falls in Santa Fe during this month. Late summer and fall moisture is derived from the Gulf of Mexico, when air masses from this region push inland to bring the economically important monsoons (Tuan et al. 1973:20). Summer rains tend to be violent and localized. This saturates the ground surface in the beginning of a storm, resulting in the loss of much of the moisture through runoff.

Flora

Local flora and fauna are typical of Upper Sonoran grasslands. The piñon-juniper grasslands, which support a variety of plant and animal species, are the most common habitat. The characteristic vegetation includes piñon, juniper, prickly pear, cholla, yucca, and several species of muhly and grama grass (Pilz 1984). The piñon-juniper community thins as it descends from the Sangre de Cristo foothills and grades into short-grass plains containing scattered juniper midway between the foothills and the Santa Fe River 1979:12). The open, grass-covered valleys contain grama grass, muhly, Indian ricegrass, galleta grass, soapweed yucca, one-seed juniper, Colorado piñon, occasional Gambel's oak, and small stands of mountain mahogany. Arroyo bottoms contain various shrubs such as four-wing saltbush, Apache plume, rabbitbrush, big sagebrush, and wolfberry. The Riparian/Wetlands habitat is found only along the perennial streams, such as the Rio Pojoaque and Rio Tesuque. Modern vegetation includes willow, cottonwood, salt cedar, rushes, and sedges (Pilz 1984). In the wider valley bottoms, ditch irrigation is practiced, including in the area north of the present study area.

Fauna

Fauna found within the project area includes coyote, badger, porcupine, blacktailed jackrabbit, desert cottontail, spotted ground squirrel, prairie dogs, and many species of birds. Mule deer and black bear are known to occur, but in low numbers (Pilz 1984). Use of the area by elk and black and grizzly bears may have been more common prior to the turn of the century (Carroll 1984:2). Plains animals, such as buffalo and pronghorn antelope, may have also been present or within a few days access.

Prehistory of the Project Area

Prehistoric Period

To place past cultural developments of the northern Rio Grande and the Santa Fe Basin in perspective, an overview of the prehistoric and historic developments in, or in the vicinity of, the project area is given in the following section. This discussion will be confined to only the relevant periods represented by the components discussed in this report, i.e., the Rio Grande Developmental, Coalition, and Classic periods. Materials from these periods—as well as from the Colonial period, and the late nineteenth and early twentieth centuries—were encountered during the current project. An overview of the historic component of the project area follows the prehistoric summary.

Researchers in the Rio Grande area have perceived the developments in that area as departing from the traditional Pecos classification (Kidder 1927). In 1955, Wendorf and Reed redefined the Pueblo I–Pueblo V periods in the Rio Grande valley based on the occurrence of ceramic types, changes in settlement patterns, and economy. The principal temporal intervals outlined by Wendorf and Reed (1955) include the Developmental, Coalition, and Classic periods.

Developmental Period
(AD 600–AD 1175)

Sites from the Developmental period in the northern Rio Grande are comparable to the late Basketmaker III and Pueblo I periods of the Pecos Classification. A growing number of Developmental sites are being recorded in the Rio Grande valley. These tend to be small with a ceramic assemblage composed primarily of Lino Gray, San Marcial Black-on-white, and various plain brown and red-slipped wares. The majority of the documented early Developmental sites are in the Albuquerque and Santa Fe districts (Frisbie 1967; Reinhart 1967; Peckham 1984). The settlement of the Rio Grande drainage has typically been attributed to immigration from either the southern areas (Bullard 1962; Jenkins and Schroeder 1974), or from the Four Corners/San Juan area (Judge 1991; Stuart and Gauthier 1988:49; Lekson and Cameron 1995:185) and—although direct evidence is meager—from the Mesa Verde area (Ortman 2009).

Archaeological sites in the Santa Fe area with Developmental components include:

(1) Pindi Pueblo (LA 1) is located in the Agua Fria area of south Santa Fe. Although primarily a Coalition period site, the site has an ephemeral Developmental period component represented by a single jacal room and a pithouse (Stubbs and Stallings 1953: 225). Kwahe'e Black-on-white ceramics were recovered, and a tree-ring date of 1218+vv was recovered below the jacal structure (Robinson et al. 1972:38).

(2) LA 618, a pithouse site with extramural features, is located on East Palace Avenue, behind the old Fischer brewery, and dates to the late Developmental period (Elliott 1988:17). Other Developmental sites near downtown Santa Fe include the KP Site (LA 46300). This site is near the project area on top of a ridge along the north side of the Santa Fe River valley near Fort Marcy. Here, a single trash-filled burned structure was tested (Wiseman 1989). The pottery types recovered during testing included Red Mesa Black-on-white, Kwahe'e Black-on-white, "Chaco II" (Red Mesa, Rio Grande variety?) Black-on-white, Escavada Black-on-white, Gallup Black-on-white, Chaco Black-on-white, Puerco Black-on-red, Cebolleta Black-on-white, Socorro Black-on-white, and Los Lunas Smudged. Obsidian chipped stone predominated, although local chert types, particularly red jasper, were also used. Eleven tree-ring and two radiocarbon dates indicate that the occupation of the structure occurred in the mid- to late-1000s and the accumulation the fill in the early 1100s. Tree-ring cutting dates of AD 1116, 1117, and 1120 are associated with the Kwahe'e Black-on-white pottery. A wide variety of plant remains were recovered, including corn, squash, and beeweed. The fauna consisted of deer, antelope, and cottontail (Wiseman 1989:139). Not far from the KP Site, Mariah Associates recorded evidence of a Pueblo II (middle Developmental) village near Fort Marcy Hill (Acklen et al. 1994).

(3) At Ogapogeh, Pueblo de Santa Fe (LA 1051), in downtown Santa Fe, several pits from the early Developmental period were exposed. These contained cultigens radiocarbon dated to between AD 350 and AD 650, possibly some of the earliest domesticated *Zea mays* and squash in the northern Rio Grande (Lentz 2011:35–39)

Coalition Period
(AD 1175–AD 1325)

The Coalition period in the northern Rio Grande is marked by substantial increases in the number and size of habitation sites coincident with population coalescence and expansion into previously unoccupied areas. This includes a shift from mineral pigment to organic paint (primarily Santa Fe Black-on-white) in decorated pottery. In the beginning, the period was distinguished by an increase in the number of village sites, suggesting an overall increase in population, and the replacement of semi-subterranean structures with surface dwellings consisting of rectangular rooms arranged in small roomblocks. Although above-ground pueblos were built, pit-structure architecture continued into the early phases of this period. Rectangular kivas, which are incorporated into room blocks, coexisted with subterranean circular structures (Cordell 1979:44). Frisbie (1967) notes the shift away from less optimal upland settings and a return to the permanent water and arable land adjacent to the major drainages.

In the northern Rio Grande, the Coalition period is characterized by two interdependent trends in population and settlement reflected in population growth. Whether this growth was due to immigration or indigenous population expansion is not fully understood. The Chama, Gallina, Pajarito Plateau, Taos, and Galisteo Basin districts, which had been the focus of little Anasazi use prior to AD 1100 to 1200, were settled during the Coalition period (Cordell 1979). In excess of 500 Santa Fe Black-on-white sites are listed for the Pajarito Plateau, although many of these sites are poorly documented (New Mexico Cultural Records Information System [NMCRIS], Archaeological Management Section, Historic Preservation Division). Representative sites of the Coalition period include LA 4632, LA 12700, and Otowi, or Potsuwii (LA 169). Artifacts used to identify early Coalition sites include slab metates, side-notched projectile points, Santa Fe Black-on-white ceramics, and a variety of indented corrugated gray wares (Lang and Scheick 1989:5). Anschuetz and Scheick (1999) identified four significant Coalition habitation settlement clusters in the Santa Fe Basin: (1) the Santa Fe downtown area at the contact between the Sangre de Cristo Mountains foothills and the lower piedmont; (2) the Rio Santa Fe Valley near present-day Agua Fria; (3) the Arroyo Hondo locale at the southern limits of the contact between the mountain foothills and the lower piedmont; and (4) the lower Rio Santa Fe Canyon in the Bocas de Centau locale upstream of La Bajada Mesa escarpment. Each of these clusters is near a sizable spring (Anschuetz and Scheick 1999). A Coalition pit structure, LA 143460, was recorded in downtown Santa Fe at the Federal Courthouse building. This structure, probably contemporaneous with the Coalition component at nearby LA 1051, yielded problematic chronometric dates (Scheick 2005:238). Overall, though, this site appears to have been occupied around the eleventh century and is probably part of Ogapogeh village.

Coalition populations made extensive use of an extremely broad range of environmental settings, including a wide variety of resource extraction and processing activity loci, agricultural fields and features, and small dwellings in the environs of large villages close to major drainages.

A Coalition component, LA 608–609, was investigated under Fort Marcy Hill and the Cross of the Martyrs (Acklen et al. 1994). Near Pindi Pueblo, the Agua Fria Schoolhouse site has a significant Coalition period component dating to between AD 1175 and 1325 (Lang and Scheick 1989).

A significant Coalition component dating to between AD 1175 and AD 1275 was investigated at Ogapogeh, Pueblo de Santa Fe (LA 1051), at the current Santa Fe Convention Center location (Lentz 2011). Substantial evidence was documented for ceremonial closures and ritual activities for the structures and features dating to between AD 1175 and 1275. In the late thirteenth century, LA 1051 was abandoned by Coalition populations (Lentz 2011:39–110).

Classic Period
(Early: AD 1325–AD 1450; Late: AD 1450–AD 1600)

The Classic period postdates the abandonment of the San Juan Basin by sedentary agriculturalists. It is characterized as a time when regional populations may have reached their maximum size, and large communities with multiple plaza and room-block complexes were established (Wendorf and Reed 1955:13). The Classic period in the northern Rio Grande coincides with the appearance of locally manufactured red-slipped and glaze-decorated ceramics in the vicinity of Santa Fe, Albuquerque, Galisteo, and the Salinas area after AD 1315, and Biscuit wares on the Pajarito Plateau, the Tewa Basin, and the Chama areas slightly later (Mera 1935; Warren 1979).

Sites of the Classic period are characterized by a bimodal distribution—large communities associated with agriculturally focused smaller structures (e.g., fieldhouses) on the one hand, and seasonally occupied farmsteads on the other. These contrast with the preceding Coalition period, where a greater range of site types characterized the settlement pattern, and the population had not yet aggregated into large communities.

The first glaze-painted pottery, called White Mountain redware, was made in the Acoma and Zuni areas; types included are: Wingate Black-on-red (AD 1050–1200), Puerco Black-on-red (AD 1000–1200), and St. John's Polychrome (AD 1175–1300). Rio Grande copies of the Zuni area Nutria-phase polychromes began with the introduction of Los Padillas at around AD 1300. Investigations of the large Biscuit-ware pueblo sites on the Pajarito Plateau include initial studies by Adolph Bandelier (1882), Hewett (1953), and Steen (1977).

In the Santa Fe area, the Galisteo Basin saw the evolution of some of the Southwest's most spectacular ruins. Many of these large pueblos were tested or excavated by N. C. Nelson early in the twentieth century (Nelson 1914, 1916). Possibly the first stratigraphic excavation in the United States was executed by Nelson on the room blocks and the midden of San Cristobal Pueblo (LA 80). Large sites in the Galisteo Basin, such as Galisteo Pueblo, San Lazaro Pueblo, San Cristobal Pueblo, San Marcos Pueblo, and Pueblo Blanco, are summarized by Smiley, Stubbs, and Bannister (1953). The School of American Research did extensive research at Arroyo Hondo (Lang 1977). The majority of Classic-period sites in the Galisteo Basin were established in the early 1300s and were of short duration. By the late 1400s, this area appears to have experienced a substantial decline in population. This has been attributed to environmental instability.

The late phase of the Classic period is bracketed by Coronado's explorations of 1540 and the founding of Santa Fe in 1605 or 1610 (Chavez 1992; C. T. Snow 1992) and is characterized by population decline. Many farmsteads and fields were abandoned following droughts in the AD 1400s and early 1500s. Population centers shifted to areas along the major river valleys. In the Santa Fe area, few pueblos remained occupied even into the 1500s. Pindi had been abandoned relatively early (AD 1349; Stubbs and Stallings 1953), and Arroyo Hondo (Schwartz and Lang 1973) and Agua Fria Schoolhouse had both been abandoned by AD 1425 (Lang and Scheick 1989). Cieneguilla was abandoned in the late 1400s or early 1500s, although some researchers believe it was reoccupied, possibly until 1680 (Schroeder 1979; Elliott 1988). At approximately 500 rooms, the pueblo was the largest in the area at that time.

Classic-phase pit structures and features dating to between AD 1365 and AD 1435 were encountered at Ogapogeh, Pueblo de Santa Fe (LA 1051), in downtown Santa Fe. This site appears to have functioned as a centrally located integrative center for surrounding Classic period villages (Lentz 2011). Abandoned in AD 1435, its Classic-period population may have relocated to the Tano Basin.

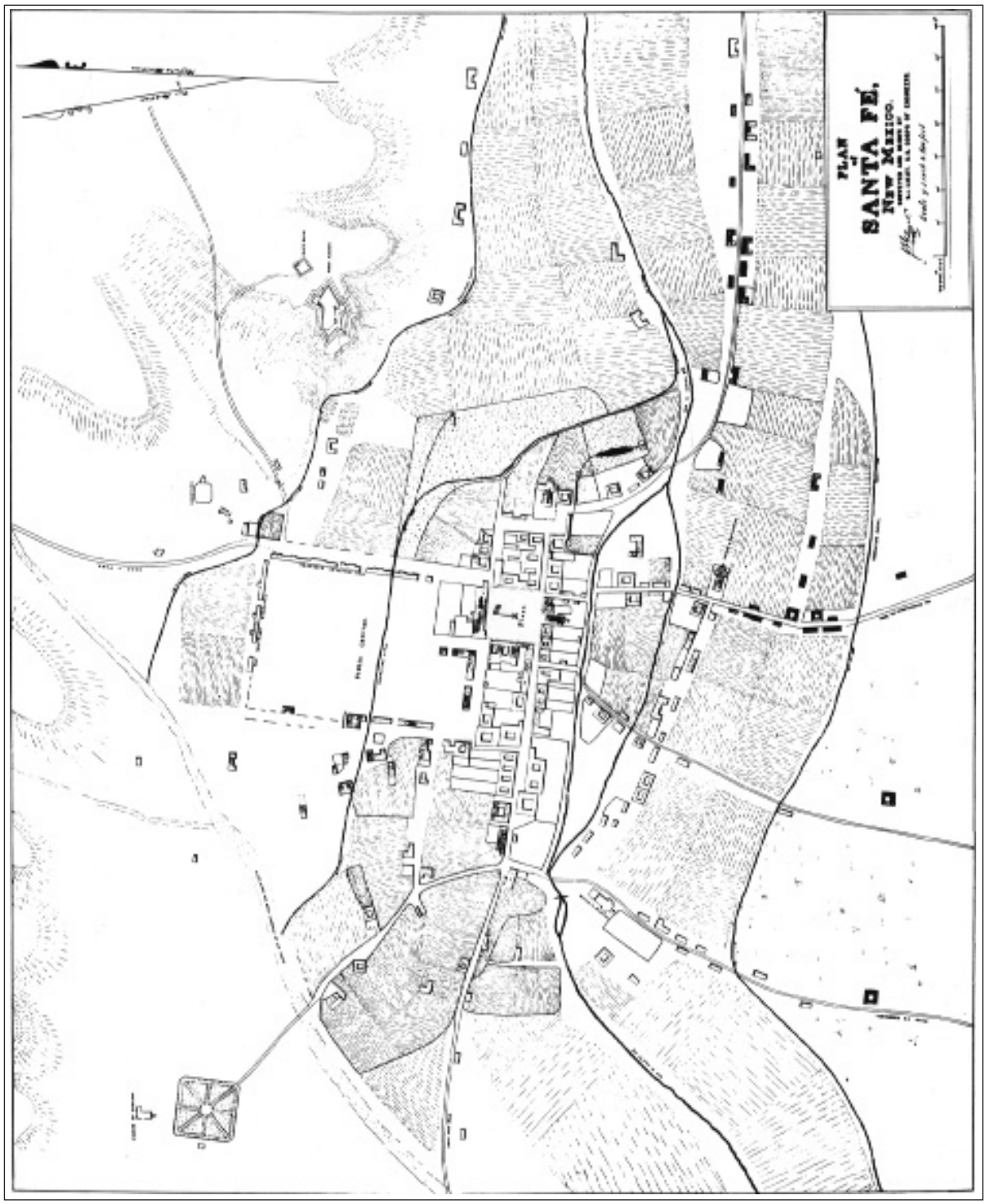

Figure 4. Gilmer's Map of Santa Fe, 1846.

Historic Period of the Northern Rio Grande

After the first Spanish explorations (*entradas)* of the mid- and late-sixteenth century, Native American groups underwent numerous changes in lifestyle, social organization, and religion (Table 1). The introduction of new crops and livestock contributed to major changes in subsistence, as did mission programs which introduced unfamiliar ideologies and new European-styled industries. Incursions by Plains groups caused the abandonment of many pueblos and a constriction of the region occupied by the pueblos (Chavez 1979; Schroeder 1979). A combination of new diseases to which the pueblos had no natural defenses, intermarriage, numerous casualties during and after the 1680 Pueblo Revolt, and the abandonment of traditional lifestyles contributed to a significant decrease in pueblo populations over the next few centuries (Dozier 1970; Eggan 1979; Simmons 1979).

The first European contact with the northern Rio Grande valley occurred in the late winter or early spring of 1541 when a foraging party of Coronado's men set up camp near San Juan Pueblo. Having heard of Coronado's earlier plundering farther south, these pueblos were hastily abandoned by their occupants. The Spaniards looted the deserted villages. After having scouted and ransacked several more pueblos (including Zuni, Hopi, and Acoma) in a futile attempt to find gold, Coronado returned to New Spain. Two friars he left behind were promptly martyred. In another instance the unfortunate clergymen left by the 1581 Chamuscado expedition at Puaray (near Bernalillo) suffered similar fates (Hammond and Rey 1940:244, 259; Eggan 1979; Simmons 1979:178).

In 1591, San Juan Pueblo was visited by the Gaspar Castaño de Sosa expedition. Castaño de Sosa erected a cross, received obedience to the King of Spain, and appointed a Tewa governor, a mayor, and various other administrators (Schroeder and Matson 1965:121, 129).

With the goals of missionization, territorial expansion, and mainly to acquiring mineral wealth, the colonizing expedition of Don Juan de Oñate arrived at Ohkay Owingeh (San Juan Pueblo) on July 11, 1598, and proclaimed it the capital of the province. During the winter of 1600–1601 the Spaniards moved across the river to a partly abandoned 400-room pueblo room block, which they renamed San Gabriel de los Caballeros (Ellis 1989). The first Catholic mission church, called San Miguel, was built at the southern end of the village (Stubbs and Ellis 1955; Ellis 1989). Soon, New Mexico was divided into seven missionary districts. A Spanish magistrate was appointed for each pueblo, and all the pueblos were subsumed under Oñate's leadership (Spicer 1962:156; Ellis 1989; Lentz and Goodman 1992).

In December of 1598, a nephew of Oñate's, Juan de Zaldivar, rode to Acoma Pueblo for the purpose of trading for food and other goods. Threatened by reports of Spaniards with possibly warlike intentions, and antagonized by the soldiers' attitude toward their women, the Acomas attacked the group, killing 12 of them, including Juan de Zaldivar. In January 1599, under Oñate's orders, a Spanish expedition led by Juan's brother, Vicente de Zaldivar, retaliated against the Acomas with a siege and a cannonade. Most of the village was burned, over 600 people were killed, and approximately 500 others were imprisoned. Prisoners of war were forced into slavery and 20 men over 25 years old had their right foot amputated. Zaldivar carried off eight women to Mexico, to be used as servants or prostitutes. Others were dispersed as slaves to other colonizers. By 1620, survivors of the Acoma massacre had rebuilt their community (Garcia-Matson 1979: 456–457; Goodman 2010:19–20).

The Spanish colony at San Gabriel did not survive the first decade of the seventeenth century. Oñate returned to Mexico in disgrace and in 1610 the capital was moved from San Gabriel to the current site of Santa Fe by Oñate's successor, Don Pedro de Peralta (Ellis 1989; Snow 1999; Lentz and Goodman 1992).

During the next twenty years, churches were built in all the pueblos. Native American secular and church officers were also established in each of the villages. These included governors (*gobernadores*), magistrates or mayors (*alcaldes*),

tax collectors (*fiscales*), and other pueblo officials. During the 1620s the villages were peaceful, and conversions to the Catholic Church increased. By 1630, 50 Franciscan missionaries were working in 25 missions, and a Catholic school was operating in each (Spicer 1962:158; Noble 1989; Hordes 1990; Lentz 2004:8–9).

Spanish Colonial Period in Santa Fe

In 1609, Oñate's successor, Pedro de Peralta, received orders from the Viceroy of New Spain to relocate the capital of New Mexico to a location along the Santa Fe River near the foothills of the Sangre de Cristo Mountains. The town was to be planned along the lines of the Reales Ordenanzas of 1573; a compilation of royal laws issued by King Philip the II of Spain containing precise guidelines on how a Spanish colonial town should be laid out in the New World. Peralta may not have scrupulously adhered to these specifications. The founding of La Villa Real de Santa Fe included the construction of irrigation ditches (*acequias),* fields, and domestic and administrative buildings. The small plaza-focused, fortified town had at its center the *Casas Reales,* a constellation of government offices, a military post, and governor's quarters, whose final configuration is known today as the Palace of the Governors. East of the Plaza, facing west, stood a solid adobe church entitled "Our Lady of the Assumption." South of the Plaza, across the river, was the Barrio de Analco, which comprised the residences of the Mexican Indians who had accompanied Oñate's colonizing mission, as well as the houses of other Indians of mixed tribal derivation (*genizaros*). Serving this community's spiritual needs was the Chapel of San Miguel (Stubbs and Ellis 1955; Hordes 1990; Snow 1999).

In the seventeenth century, Santa Fe probably resembled a typical Mexican town on the northern frontier of the vast Spanish empire. Despite its isolation, the town was provisioned once or twice a year with merchandise hauled 1600 miles along the Camino Real from Mexico City. What could not be obtained from Spanish sources was grown or built. Farming and ranching were the main industries, and pueblo craftsmen were recruited to build churches and residences, supply vegetables, meat and fuel wood, and provide local imitations of European ceramics for storage and dinner ware. Thus, until 1680, Santa Fe grew at a fairly steady pace (cf., Noble 2008: vii; Lentz 2011). However, throughout the 1600s and as late as 1715, the town and surrounding settlements were frequently attacked by marauding native groups. During this period, settlers built defensive towers *(torreones*) and guard posts (e.g., La Garita, in northeastern Santa Fe), and sought refuge in fortified communities, such as Agua Fria, La Cienega and Chimayo (Lentz 2011:31).

Pueblo Revolt of 1680

In 1676, there began a series of events that ultimately led to the Pueblo Revolt of 1680. Forty-seven Pueblo religious leaders were jailed and flogged in Santa Fe for their adherence to traditional Pueblo beliefs. Among them was the San Juan moiety chief Popé, under whose leadership the Pueblo Revolt was subsequently planned and carried out by nearly all of the pueblos, including Hopi, Zuni, and Pecos. Only the southern Tiwa pueblos and the Piros did not participate. Twenty-one of the 33 Franciscan friars in the territory were killed, along with 400 Spaniards. In August of 1680, in Santa Fe was the site of a well-planned siege by an alliance of Pueblo forces. On August 18, a fierce battle raged on the plaza on each side of a critical irrigation ditch (the *Acequia Madre*) directly in front of the Palace of the Governors (Lentz 2004: 70). Once the water supply to the Palace was cut off by the insurgents, Governor Otermín surrendered. On August 21, 1690, the Spaniards were allowed to evacuate the city without any further resistance (Hackett and Shelby 1942:11, 56–57; Noble 1989; Hordes 1990).

The Pueblos held firm to their independence for 12 years. During the winter of 1681–1682 an attempted reconquest by Governor Otermín was turned back. Otermín managed to sack and burn most of the pueblos south of Cochiti before returning to Mexico. Taking advantage of inter-Pueblo factionalism, the definitive *reconquista* was initiated in 1692 by Don Diego de Vargas. Far from "bloodless," as many accounts suggest, a coalition of Pueblo resistance on Black Mesa was besieged, starved, and eventually slaughtered, and 70 Pueblo leaders were executed (Twitchell 1925;

Hackett and Shelby 1942; Dozier 1970; Simmons 1979:186).

Reconquest

After Vargas took control of the province in 1692, the Spanish government granted free title tracts of land to colonists to encourage resettlement of the New Mexico province. By 1696 northern New Mexico was re-occupied, and many Hispanic colonists lived on approximately 140 land grants. The pueblos were granted their own "Pueblo Leagues," but were frequently encroached upon by the Spanish colonists, and later, Anglo-American settlers (Noble 1989; Hordes 1990).

Soon after 1698, Hispanic pioneers, such as Sebastian Martín and his family, settled north of Santa Fe along the upper Rio Grande, or the *Rio Arriba*. In the 1700s, this large area, which stretched north of Santa Fe to Taos, was on the northern frontier of Spanish settlement. Life there was difficult and dangerous, with frequent Navajo, Ute, Apache, and Comanche raids, in addition to droughts, storms and epidemics. In 1747, many of the northern frontier settlements were abandoned due to frequent attacks by Utes. Settlements such as Los Luceros were not re-occupied until 1750, and even then, guards had to be assigned to the residents (Lentz 2011: 13-13).

One of many Spanish settlers to occupy the northern Rio Grande was Don Ignacio Roybal, who, in 1793, settled within the Pojoaque Pueblo land grant at Jacona. He began building an irrigation ditch, the *Acequia Larga de Jacona* which also encroached on the San Ildefonso Pueblo League to the west. This particularly flagrant Spanish intrusion on Native American lands is still one of the longest standing water-rights cases in U.S. history (Hall 1987).

In 1695, the second *villa* decreed in New Mexico by the Spanish government was established two miles east of present-day Española. Founded by Don Diego de Vargas, it was named "La Villa Nueva de Santa Cruz de la Cañada." Thus, Santa Fe was the first official villa in 1610, Santa Cruz the second in 1695, and Albuquerque the third in 1706 (Twitchell 1925; Pearce 1963; Hordes 1990; Snow 1999).

Mexican Period (1821–1846)

With the signing of the Treaty of Cordova on August 24, 1821, Mexico secured its independence from Spain, and New Mexico became part of the Mexican nation. Until January 31, 1824, New Mexico remained one of the "internal provinces" attached to the *comandancia* of Chihuahua, and joined with Chihuahua and Durango to form the Internal State of the North, but this was soon dissolved and New Mexico reverted to becoming a Mexican territory. The Treaty of Cordova decreed that all Indians residing in New Mexico be granted full Mexican citizenship. The *encomienda* system, or a program of indentured servitude, was abolished. The concept of *genizaro*—displaced Native Americans who had lost their tribal identity through capture—was suspended. Importantly, the brief Mexican Period saw the opening of the Santa Fe Trail, and expanded trade networks brought new settlers and goods for industrial manufacture. The Santa Fe Trail was the first American trans-Mississippi pathway to the West and the only route that entered into another country (Simmons 1988; National Park Service 1990; Lentz 2004).

In the early fall of 1821, William Becknell set out from Franklin, Missouri, taking a small load of goods to trade with the Indians of the Rocky Mountains and made his way across Raton Pass where he was met by Mexican troops. Instead of being taken prisoner for entering the territory illegally, he was escorted to Santa Fe to dispose of his goods. The trade eventually became centered in Santa Fe, and overflowed into the Mexican provinces, where merchants found lucrative markets for their wares. The Santa Fe trade in turn brought Mexican silver coins, furs, wool, and raw material north. Josiah Gregg brought the first printing press to New Mexico in 1834. However, conflicts with Indians and lack of adequate finances continued to plague New Mexico.

It is not known if conditions in Santa Fe improved under Mexican rule. However, the opening of free trade routes with U.S. industrial centers provided an economic boost, and several civic projects were undertaken to beautify the town. The Mexican period ended abruptly with the annexation of New Mexico by the United States, an event that went largely unnoticed by most of the

population outside of Santa Fe (Simmons 1988; Elliott 1988:34–35; Hordes 1990; Snow 1995; Lentz 2004, 2010).

Territorial Period (1846–1912)

Following the short-lived Mexican period, General Stephen Kearny accepted the surrender of Acting Governor Juan Bautista Vigil y Alaríd. The U.S. flag was run up over the Palace of the Governors in Santa Fe on August 18, 1846 (Fig. 4). By the Treaty of Guadalupe Hidalgo, on February 2, 1848, which ended the Mexican War, U.S. dominion was established in New Mexico. In 1850, New Mexico was officially made a territory of the United States. Under Territorial period U.S. laws, Pueblo Indians were tacitly afforded the same rights as all U.S. citizens. In Santa Fe, General Kearny immediately set about planning Fort Marcy, and erected some earthen embankments on top of what is now known as Fort Marcy Hill. Constructed in case of resistance to the American presence, it was never occupied, and appeared to have been placed at that location to enforce U.S. hegemony over the former Mexican province. Instead, a complex of barracks, buildings, and corrals constructed just north of the plaza became known as Fort Marcy. It was officially decommissioned in 1895, but continued to be used intermittently by the military until 1906, when the Fort Marcy Hospital became Santa Fe High School (Barbour 2011: 73–145; Lentz and Barbour 2011: 63–145).

During the American Civil War, the Army of the Confederacy was fighting to gain control of the Santa Fe Trail in northern New Mexico. Their strategy was to take over the proposed Southern Pacific Railroad route near the Mexican border. Uniting the Confederacy with transportation routes to the ports and gold fields of California would have bolstered the economy of the southern states and given the Confederate Army military and political power over most of the United States. The Confederates also planned to annex a portion of Mexico. According to its architects, this vast territory would be acquired as a slave-based economy stretching from the Pacific to the Atlantic (Barbour 2011; Lentz and Barbour 2011).

In February and early March of 1862, the Confederate Army, under the command of Brigadier General Sibley, successfully defeated the Union troops at Valverde in New Mexico. They briefly controlled a portion of New Mexico along the Rio Grande from El Paso, Texas, north to Santa Fe, and occupied Fort Marcy in March of 1862. Sibley then made plans to capture Fort Union, east of Santa Fe. In its role as the protector of the Santa Fe Trail, Fort Union was the headquarters and supply depot for the Department of New Mexico and the key to controlling the entire territory. The Battle of Glorieta, which took place along the Santa Fe Trail in Glorieta Pass, was a victory by the Union Army and resulted in Union control over New Mexico (Swanson 1988). During that decisive battle, both armies had formed at the opposing ends of Glorieta Pass. On the morning of March 28, 1862, both sides advanced simultaneously and fought a pitched battle in the woods at Pigeon's Ranch, near Pecos. Although the battle itself was a Confederate victory, Sibley conceded defeat after he received word that a Union detachment had diverged over the top of Glorieta Mesa and destroyed the Confederate supply train at Johnson's Ranch. As a result, the Confederate forces retreated from New Mexico, returning to Texas with only one-third of Sibley's original army. The Battle of Glorieta forced the Confederacy to abandon their plans to conquer the West. As a result of these events, the Union Army retained control of one of their main military supply routes, the Santa Fe Trail (Swanson 1988; National Park Service 1990).

While the Civil War was being fought, another war was getting under way, the so-called "Navajo Wars." During the Navajo Removal Act in 1863 and 1864, the U.S. government, led by Kit Carson, waged a two-year war against the Navajo (Diné) people. Finally, under the order of Brigadier General James Carleton, an all-out assault was launched on the remaining Navajo that had sought refuge in the canyon country of northeastern Arizona. During the campaign, Carson and Captain Albert Pfeiffer burned orchards and wheat fields, as well as hogans and corrals, confiscated livestock, and killed as many Navajos as they could catch. In January and February of 1864, in Canyon de Chelly and Canyon del Muerto, the Army eventually rounded up a small group of freezing, starving men, women, and children. This persistent aggression was enough to demor-

alize the remaining Navajos, and throughout the spring of 1864, thousands of Diné surrendered at Fort Canby. From there, they were forced to undertake the infamous "Long Walk" to a place of confinement at Bosque Redondo along the Pecos River near Fort Sumner. There, attempts were made to turn the former pastoralists into farmers, first by Carson (who resigned) and later by Carleton, all of which resulted in failure and deplorable conditions for the prisoners (Simmons 1988; National Park Service 1990, Sides 2006).

Following the Civil War, livestock became the dominant industry in the western valleys and in the Llano Estacado east of the Pecos River. Undaunted by Comanche, Navajo, Ute, and Apache raiding, New Mexico cattle and sheep industries thrived as new markets were opened in the eastern United States. In the 1870s, conflicts between cattlemen, sheep ranchers and homesteaders resulted in the Lincoln County range wars, which were ended only by the intervention of federal troops during the administration of Governor Lew Wallace. Opportunities in land speculation led to the formation of the Santa Fe Ring, a group of attorneys, businessmen, ranchers, and promoters who virtually controlled the economic and political life of the territory. Many prominent New Mexican citizens were involved, including Lawrence Murphy, John Chisum, John Tunstall, and Thomas B. Catron. Gunmen like Frank McNab and Billy the Kid were employed as "enforcers" (Theisen n.d.).

Opened at the beginning of the Mexican Period, the Santa Fe Trail had brought a minor economic boom to Santa Fe. However, the arrival of the railroads signaled the complete demise of the famous trade route. The first train of the Atchison, Topeka & Santa Fe Railway arrived in Las Vegas, New Mexico, on April 4, 1879. Though Santa Fe citizens prepared themselves for an economic boom, extraordinarily bad planning saw the main line of the railroad bypassing the city to a depot at Lamy, over 20 miles away. This lack of accessibility gradually brought about a general business decline, and, after 1880, Santa Fe gradually lost its prominence as a social and economic center. In 1883, in an effort to revitalize the economy, the town council created a fictitious celebration, the Tertio-Millennial. Although not nearly as successful as its sponsors had hoped, the Tertio-Millennial made Santa Fe a tourist destination (Hannaford 1997:5; Barbour 2011:414).

In 1869, a French Franciscan priest, Jean Baptiste Lamy, began construction on the St. Francis Cathedral over the adobe remains of the previous 1806 "fifth" Parish church (Chavez 1947). During his life, Archbishop Lamy brought a strong stabilizing presence to Santa Fe society, known for its unruly "Wild West" atmosphere. He died in 1884, two years before the cathedral was completed.

New Mexico failed to obtain statehood in 1850, 1867, 1870, and again in 1889. Finally, President William Howard Taft signed a bill making New Mexico the 47th state of the Union on January 6, 1912.

Archaeological Monitoring of a Utility Trench Excavation Along East Palace Avenue

Between February 17 and February 23, 2012, OAS personnel monitored the excavation of a utility trench along East Palace Avenue. This trench was designed to contain a new fiber optic line and was installed above a preexisting fiber optic utility. It measured 122 ft long east–west, approximately 18 inches wide and varied between 3 ft and 6 ft deep (Figs. 1, 5). Seventy-five artifacts were opportunistically recovered from the trench. Since the mechanical excavations took place within a previously disturbed utility easement, it was assumed that these materials were located in secondary depositional contexts.

Stratigraphy of the Utility Trench

The stratigraphy of the CenturyLink Utility trench, described below, is illustrated in Figure 5.

Top of Trench consisted of the existing pavement. It was 10 cm thick. The beginning elevation was 2135.65 m actual USGS elevation (GPS).

Base Course (2135.55 to 2135.43 mbd). This was approximately 12 cm of commercially produced gravel ("shaker fine") and asphalt mix, Munsell 10YR 4/4 dark yellowish brown.

Sand (2135.43 to 2135.38 mbd). This sand layer was obviously brought in prior to laying down the base course. Fine to medium-grained sand, Munsell 7.5YR 6/0 gray.

Fill (2135.38 to 2135.02 mbd). Although ascertaining the origin of this layer was problematic, it

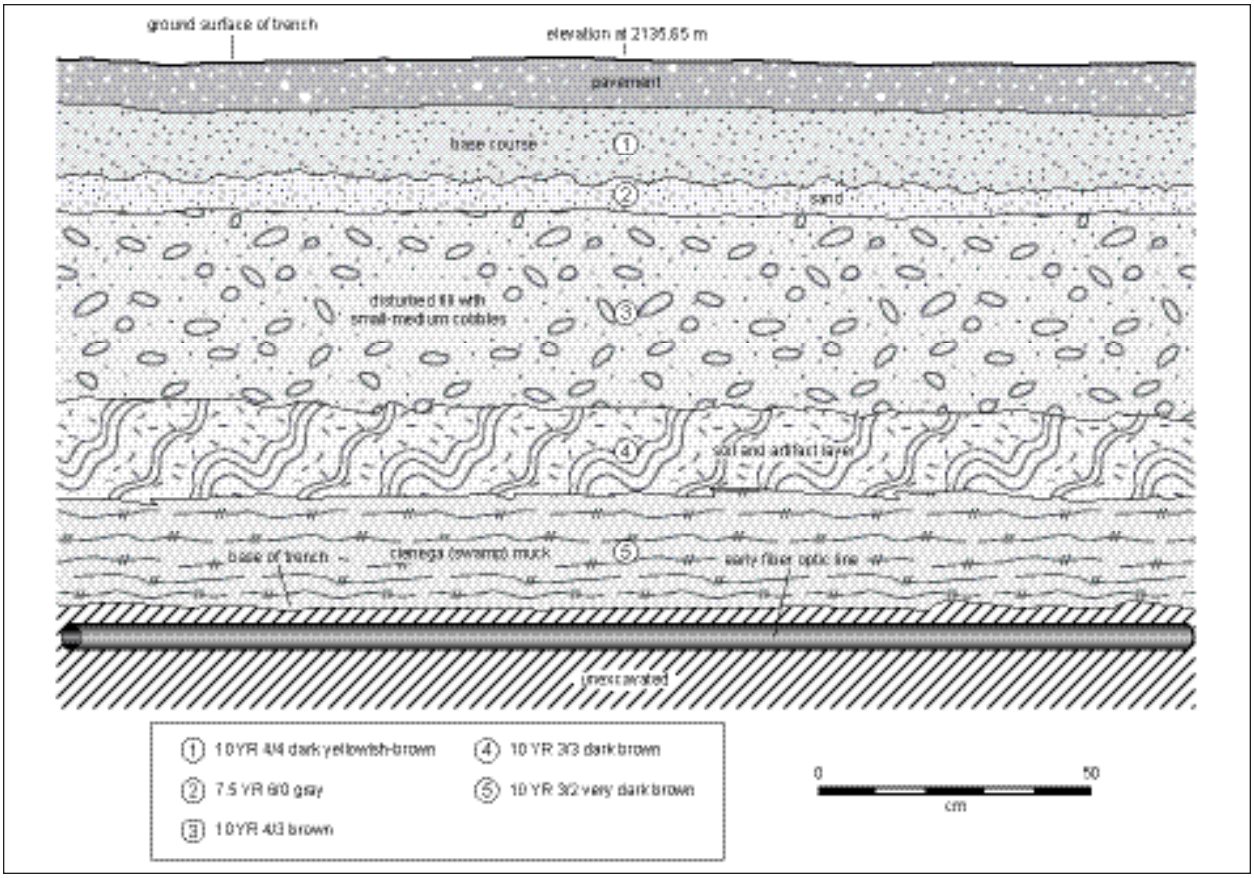

Figure 5. East Palace Avenue, utility trench profile, facing north.

appeared to have been redeposited fill, possibly from the prior utility excavation, with small- to medium-sized river (water-rounded) cobbles and occasional small charcoal inclusions, Munsell 10YR 4/3 brown. Recovery included a few artifacts, all bone.

Cultural Layer (2135.02 to 2134.85 mbd). This layer, although disturbed, contained the majority of the artifacts that were recovered from the trench. It consisted of fairly homogeneous dark brown sandy loam with <2% small gravels and cobbles. Some charcoal inclusions and artifacts were present, Munsell 10YR 3/2 very dark brown.

Cienega Muck (2134.85 to 2134.65 mbd). Alluvial deposits from the cienega that existed in this area prior to the turn of the twentieth century. Moist sticky organic mud, no artifacts, 10YR 3/2 very dark brown.

Base. The base of the trench and the earlier fiber optic line are located at 2134.65 to 2134.61 mbd (Fig. 5).

Excavation of a Test Pit Within the Drury Property, LA 161535

Between February 20 and February 22, 2012, a test pit was excavated on private property managed by Drury Hotels, Inc., in the Historic Santa Fe Downtown Archaeological District. The area had been previously designated a site LA 161535 and had been tested and excavated by the OAS (Moore, 2009; Moore, in prep.). The test pit was designed to facilitate mechanical boring under an adjacent wall and sidewalk. The dimensions of this unit, 5 ft by 5 ft, were predetermined because of its specialized purpose; however the excavation methods were undertaken using standard metric field techniques.

Prior to digging the test pit, 13 auger tests were excavated in the proposed test pit location to determine if subsurface cultural materials were present and to help characterize the nature of the subsurface sediments. Artifacts, including bone, metal, native ceramics, and glass, were encountered in 9 auger tests. The context in which the artifacts had been located had been disturbed by previous gardening activities, the previous burial of a subsurface sprinkling system, and tree roots.

The 5 ft by 5 ft pit was located at the northwest corner of Marian Hall, adjacent to the fence and sidewalk separating the building and Cathedral Park (20 m to the west) from East Palace Avenue (Fig. 1).

Test Pit Stratigraphy

Level 1. Based on the information from the auger tests, the first 30 cm of fill were removed expediently and not screened. Artifacts were collected opportunistically from the backdirt. After the initial clearing of 30 cm of disturbed soil, the pit was excavated in one 20 cm arbitrary level and seven 10 cm arbitrary levels.

Level 2: This 20 cm arbitrary level (from 2114.52 to 2114.32 mbd) consisted of Munsell 10YR 4/3 loosely consolidated brown loam with 2% gravel inclusions. The entire level was interwoven with white PVC pipe from the defunct sprinkler system and tree roots and rootlets from other vegetation. Apart from modern trash (pull tab and aluminum), and construction debris (mortar, red brick, possibly from when the sanitarium was restored after a fire in 1896), other artifacts included native ceramics, lithics, ground stone, animal (cow, goat/sheep) bone, glass, metal, one human carpal bone, and a shell button. Also, a black plastic conduit pipe, which appeared to be a retired water line (Fig. 6, was present along the north wall of the pit.

Level 3. This 10 cm arbitrary level (from 2114.32 to 2114.22 mbd) consisted of (Munsell) 10YR 4/3 slightly compacted brown loam with pea gravels, sparse charcoal flecks, and abundant roots. At the base of this level two parallel courses of bricks were encountered and labeled Feature 100 (to avoid confusion with the numbering system used in the Drury project). This feature is described in another section of this document. Artifacts included native ceramics, chipped stone, animal (cow, goat/sheep) bone, glass, metal, Euro-ceramics, and a metal military button embossed with an eagle (Fig. 15).

Level 4. This arbitrary level was excavated from 2114.22 to 2114.12 mbd, and was composed of a loosely compacted silty loam (Munsell 10YR 4/3 brown) with small charcoal inclusions. There were also 10 larger cobbles (averaging 15 by 15 cm). Many roots crisscrossed the unit. The base

of the brick alignment was encountered at the bottom of this level, but was left in place (Figs. 7–9). Recovered artifacts included native ceramics, bone, and metal.

Level 5. This 10 cm level (from 2114.12 to 2114.02 mbd) was clayey-loam (Munsell 10YR 3/3 dark brown) with large sand inclusions, and a charcoal lens (Fig. 6). Artifacts included native ceramics, bone, Euro-ceramics, glass, and metal.

Level 6. This level was excavated from 100 m to 112 cm bd. The matrix of this level was composed of sandy clay with sand (from the sandstone inclusion above?), 4 large cobbles and charcoal that came from the charcoal lens (Munsell 10YR 3/3 dark brown). One large cow bone was recovered. The base of this level turned into the darker "Cienega Muck."

Level 7. This level (2114.02 to 2113.94 mbd) consisted of consolidated silty clay, the beginnings of Cienega Muck (Munsell 10YR 3/2 very dark grayish brown) with sparse charcoal flecks, sandy pockets, and artifact inclusions (native ceramics, bone, Euro-ceramics, metal and glass).

Level 8. This level was excavated from 2113.94 to 2113.84 mbd. It consisted of consolidated dark brown clay and Cienega Muck with a few charcoal fleck inclusions (Munsell 10YR 3/2 very dark grayish brown). Artifacts were sparse and confined to the upper levels as well as from pockets of coarse arkosic sand. Artifacts consisted of ceramic, bone, ground stone and glass. Near the bottom of the pit an old iron pipe, which may have carried water or gas during one of the earlier uses for Marian Hall (the sanatorium), was encountered. Since the base of this level was composed entirely of swamp muck, and was culturally sterile, excavations ceased (Fig. 6).

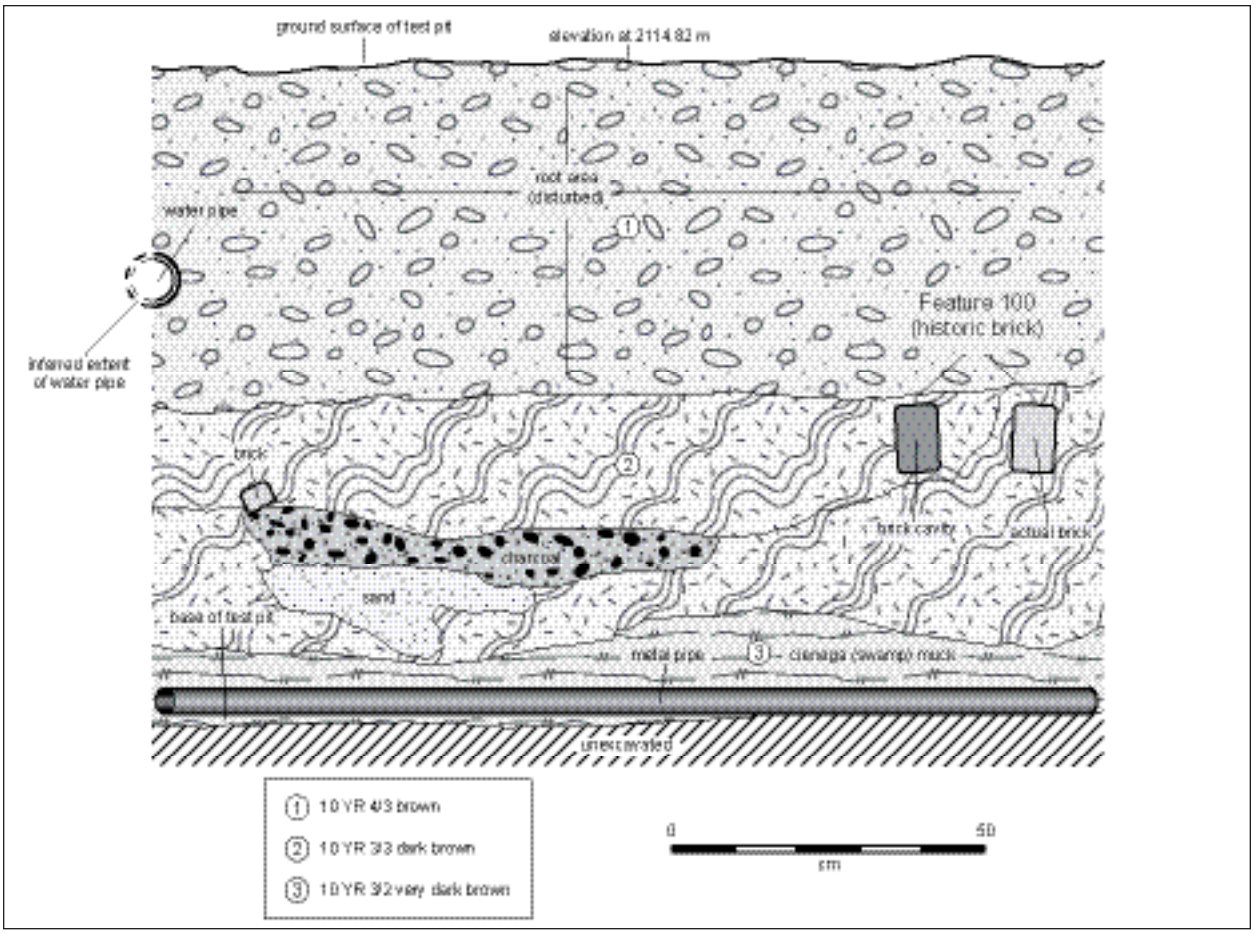

Figure 6. Test Pit, east profile

Description of Feature 100

Encountered in Test Pit 1, at a depth of between 80 and 92 cmbd, this feature consisted of a single-coursed, parallel double row of commercially manufactured red bricks that ran east–west and were set approximately 6 to10 cm apart (Fig. 8). Rather than lying flat, the bricks were set on their edge, end to end. No mortar had been used, although the surrounding soil may have been used as mud to pack between the elements. Each brick was of the "one-penny" variety, i.e., price paid instead of using the superior 10-cent bricks. The penny bricks were poorly fired and bright red with a tendency to crack and crumble, and not of standard size. They varied from 17 to 22 cm long, and from 7 to 12 cm thick. (Figs. 6–9).

These rows continued for an unknown distance east and west, beyond the edges of the test pit, and were either part of some water channel or part of a landscape detail. Since the previously described iron pipe underlay the brick feature, it can be assumed that the feature post-dated the earlier Marian Hall component (sanatorium) and may have been associated with the rebuilding of the structure after the 1896 fire.

As described above, Marian Hall was originally intended to be a trade school for girls, but became the St. Vincent Sanatorium, and later, a convent and a residence for nurses. Construction began in 1878, was completed in 1882, and the building opened the next year. The building was also used as a gathering spot where raffles were held, bands played, and classes were offered in music, painting and drawing. It was rebuilt between 1910 and 1911 (Fig. 10), about 15 years after the late nineteenth century fire. The Sisters of Charity insisted in calling it a sanatorium, since it was used to treat tuberculosis exclusively, rather than the general "sanitarium." It was remodeled in 1954, the year the new St. Vincent Hospital opened, and was then renamed Marian Hall. The

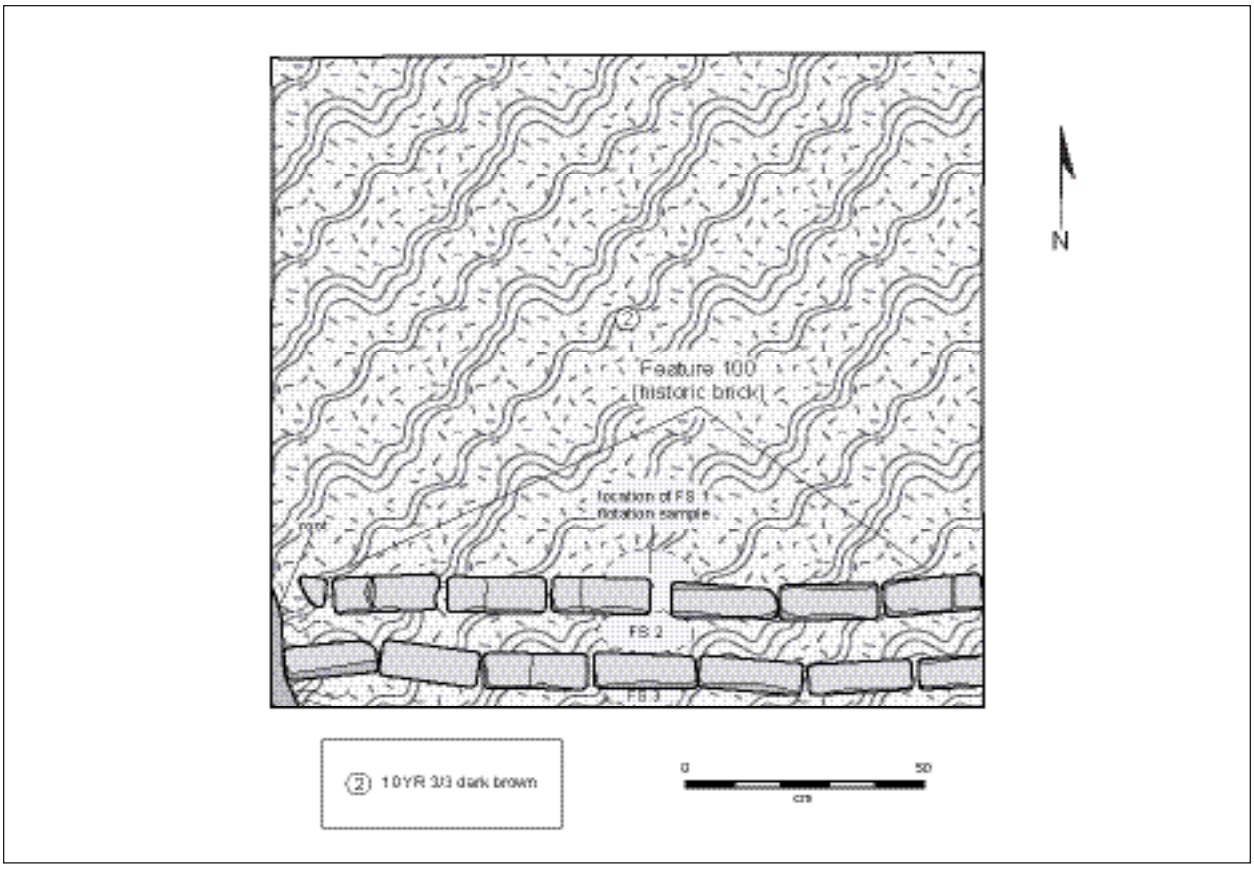

Figure 7. Test Pit, plan view, top of Feature 100.

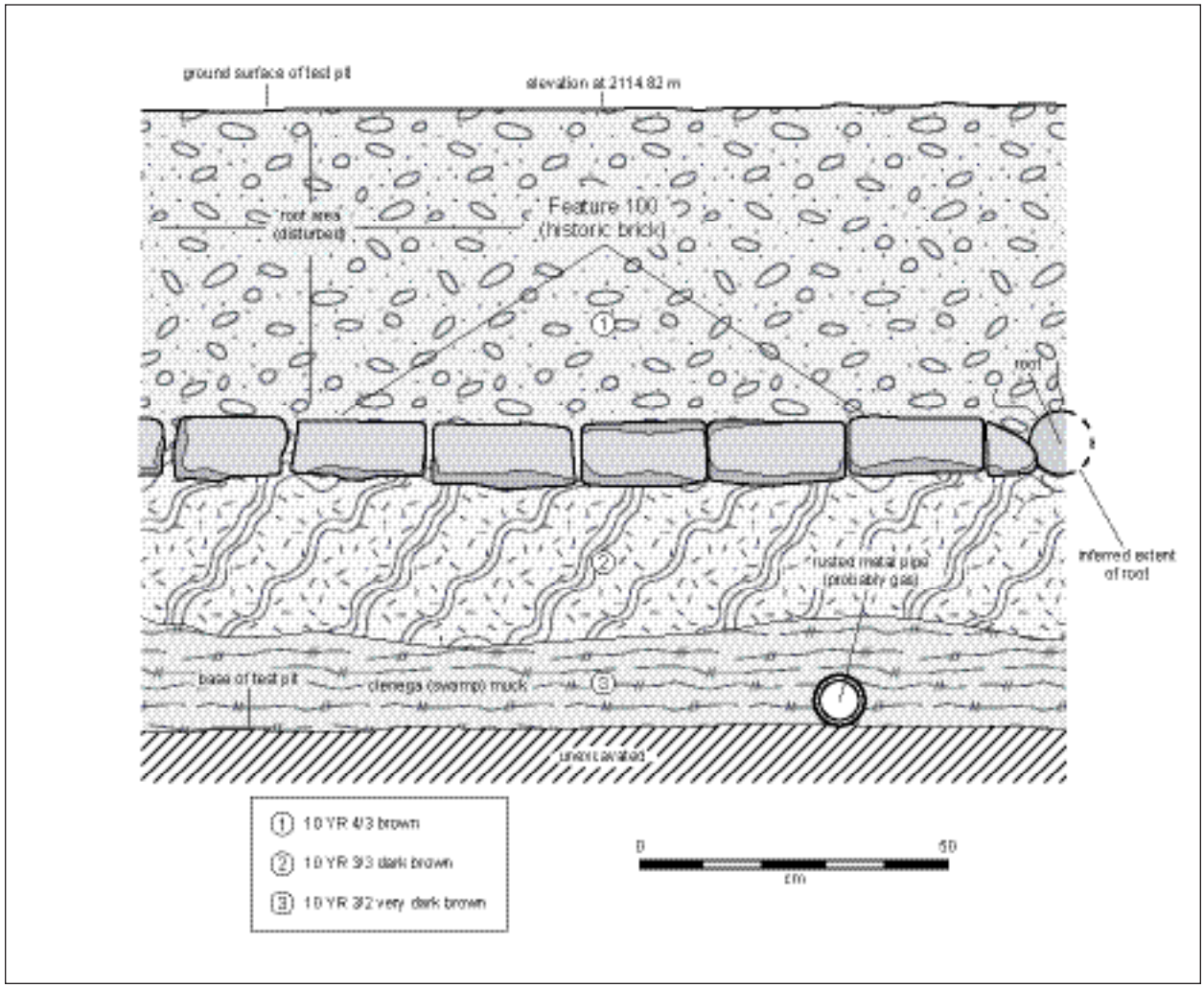

Figure 8. Test Pit, south profile, Feature 100.

Figure 9. Test Pit, Feature 100, looking south.

Figure 10. Marian Hall, 1912.

first two floors were used as a convent and the third floor was used as a residence for nurses. It is likely that the institutional white ware, medicine bottles, indulgences, and miscellaneous personal items from the OAS 2012 test pit came from the kitchen and wards of this facility.

Lithic and Ground Stone Artifacts

BY GAVIN BIRD

Chipped stone artifacts were analyzed using a standardized format developed by the Office of Archaeological Studies (OAS 1994) that includes both typological and attribute-based approaches. In typological approaches, individual artifacts are classified into types that have some kind of technological or functional meaning (Andrefsky 2001:6).

In all, nine lithic artifacts were recovered during the monitoring of the CenturyLink utility trench (Table 2). All of the material types noted in the assemblage are available from local sources with the exception of a single piece of Pedernal chert. The most prevalent material type was limestone (n=5). The remaining materials (Madera chert, tan chert, and cream chert) were represented by one specimen each. There was a total of four unutilized core flakes consisting of three limestone and one Madera chert. Three unutilized angular debris, consisting of two limestone and one cream chert, were also identified. These materials can be found in outcrops in the foothills of the Sangre de Cristo Mountains and in the river cobbles of the Santa Fe River. The two artifacts of note are the pieces of Pedernal chert and tan chert, which are "strike-a-light" flints used with a metal *chispa* to produce a spark for lighting fires or tobacco. Both of these artifacts show the step fractures and metal adhesions typical of strike-a-lights (Figs. 11, 12). These two artifacts can provide a rough temporal interval for the assemblage since strike-a-lights do not appear prior to the historic period and can thus be assumed to date sometime after the early seventeenth century. The limestone fragments might also repre-

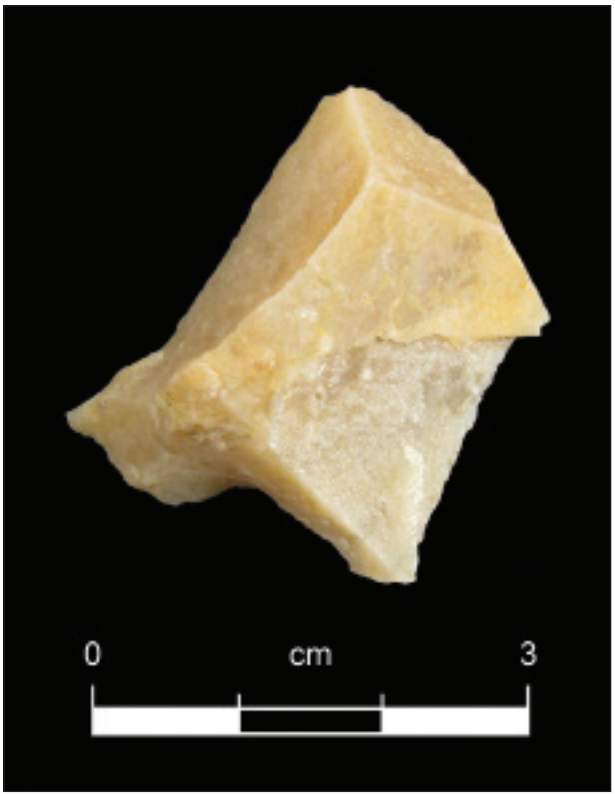

Figure 11. Strike-a-light (chert), utility trench.

Figure 12. Strike-a-light (chert), utility trench.

sent a final finishing of the limestone blocks used to construct the various buildings and walls in the immediate area.

A single gray/brown quartzite mano fragment was also identified in the assemblage. Quartzites of various colors can be found in the river cobbles of the Santa Fe River.

Euroamerican Artifact Analysis

BY MATTHEW J. BARBOUR

Euroamerican artifacts represent objects that were not available in the American Southwest prior to the establishment of European settlements in the sixteenth century. Assemblages typically include a variety of artifact types such as bottle glass, can or metal fragments, and wheel-thrown ceramics reflecting domestic, commercial, agrarian, and industrial activities and behaviors.

In all, 151 Euroamerican artifacts were collected from the archaeological monitoring and test excavation associated with the CenturyLink project. Euroamerican analysis followed methods outlined in Boyer et al. (1994), specifically created to quantify Euroamerican assemblages. General descriptive attributes such as material type, manufacturing technique, and color were recorded for each artifact. The focus of this analysis was to identify the materials recovered, date the contexts in which they were found, and discuss how these artifacts informed upon the history of the area.

This chapter is divided into four sections. It begins with a brief discussion of analysis methods. This is followed by an overview of the Euroamerican artifact assemblage. Then, the assemblage is divided by the context in which the materials were found. Lastly, the findings are summarized.

Analysis Methods

The OAS Euroamerican analysis format and procedures were developed over the last 10 years and incorporate the range of variability found in sites dating from the sixteenth to twentieth century throughout New Mexico (Boyer et al. 1994). These methods are loosely based on South's (1977) Carolina and Frontier artifact patterns and the function-based analytical framework described by Hull-Walski and Ayres (1989) for dam construction camps in central Arizona. This detailed recording format allows for the examination of particular temporal and spatial contexts and for direct comparisons with contemporaneous assemblages from other parts of New Mexico and the greater Southwest. Recorded attributes were entered into an electronic data base (Statistical Package for the Social Sciences, or SPSS) for analysis and comparison with similar databases on file at the OAS.

Analysis Results: Assemblages

The 151 Euroamerican artifacts recovered from the LA 161535 included a diverse array of products that encompassed 10 of the 12 broad functional categories used in the OAS Euroamerican artifact analysis (Table 3). Economy, production, and communication items were not recovered during the current project. Overall, the artifacts typify assemblages encountered in the Santa Fe area dating to the late nineteenth and early twentieth century. Many of these items are indicative of the increased commercialization and standardization of the American economy during this period. In this section, the analyzed Euroamerican artifacts are discussed collectively by function-based category to examine broad patterns in artifact distribution and the range of variability inherent in these distribution patterns.

Unassignable Items. In all, 44 artifacts or 29.1 percent of the total Euroamerican assemblage could not be assigned a particular activity or behavior. However, it is possible to speculate that many of these goods represent indulgence and food items. The unassignable category is composed primarily of highly fragmented bottle glass (n=13) and metal can fragments (n=28) that did not retain enough diagnostic attributes to assign a specific function. Some of these objects, such as mold-blown bottle glass, represent temporal indicators of the nineteenth and twentieth centuries.

Food Items. Euroamerican artifacts typically classified as food products are represented by their inorganic containers distinguished by qualitative characteristics, such as container shape and size. At LA 161135, one Euroamerican artifact was

identified as being food related. It was a fragment of a packer-finished condiment bottle (Table 3).

Indulgence Items. Indulgences (n=28) represent items that are not a necessity for human subsistence, but consumed for pleasure or recreation. These types of items represent 18.5 percent of the total Euroamerican assemblage. The vast majority (n=27) of products identified within this function-based category were related to the consumption of alcoholic beverages, principally beer (n=25). Among the beer products was a stoneware ale bottle with a Bristol slip. Stoneware ale bottles were manufactured throughout the late nineteenth and early twentieth centuries (ca. 1880 to 1920).

Domestic Items. Domestic items include products used in food service, preparing or preserving food, child care, and/or in the care of household furnishings. Items within this category represented roughly 14.6 percent (n=22, mnv=16) of the total Euroamerican assemblage (n=151). All artifacts within the domestic category were fragments of ceramic dinnerware. Analysis of the dinnerware was accomplished by distinguishing paste, ware and Aesthetic design characteristics defined by Majewski (2008) and Majewski and O'Brien (1987, 1989). Sherd and mnv (mean number of vessels) counts are presented in Table 4 by ware, aesthetic design, and vessel form (Fig. 13).

The majority of sherds were undecorated vitreous white-bodied earthenware (n=15, mnv=10). More commonly referred to as "hotelware" or "hotel china," these ceramics were mass-manufactured in the late nineteenth and early twentieth centuries typically for use in hotels, at dinners, and in institutional settings (Majewski 2008). The presence of the sanatorium nearby during the late nineteenth century may account for the presence of these dinnerwares within the deposit. The presence of continental (n=2, mnv=2) and eastern porcelain (n=1, mnv=1) ware is somewhat surprising, as these dinnerware types were among the most expensive available to turn-of-the-twentieth-century consumers. If the assemblage is largely coming from the sanatorium, these items could reflect the affluence and wealth of its patients.

Figure 13. Tableware (porcelain, Aesthetic Movement), utility trench.

Furnishing Items. Furnishing items are typically represented by non-consumptive consumer products that occur within a building such as furniture, light fixtures, or appliances. These items are often poorly represented within archaeological deposits. One furnishing item, a flower pot fragment, was recovered.

Construction and Maintenance Items. A substantial portion of all Euroamerican artifacts fall within the construction and maintenance category (n=47, 31.1 percent). Construction and maintenance items include: tools; hardware; building materials; electrical items; storage items; fencing materials; plumbing and water supply materials; lubricants and solvents; and tent-related materials. At LA 161535, these items were represented primarily by hardware (n=22) and building materials (n=15).

Hardware items include objects such as bolts, hinges, brackets, screws, nails, and chains. Nails (n=20) tend to be the most common hardware found. Their manufacturing technique can be used to determine the age of a deposit. The current assemblage contains hand-wrought (n=1), machine-cut (n=16), and wire-drawn (n=3) nails. The greater frequency of machine-cut to wire-drawn nails would be indicative of an assemblage dating to the mid- to late-nineteenth century, as by 1890 wire-drawn nails had surpassed machine-cut nails in popularity (Fontana and Greenleaf 1962:47; Nelson 1968:10). While the hand-wrought nail could be of colonial manufacture, this nail manufacturing technique continued to be utilized up until the mid-nineteenth century (Nelson 1968:3). All of the nails with identifiable heads were of the common multipurpose variety.

Building materials consisted of window glass (n=13) and *jaspe* (n=2). The window glass fragments were small and could not be linked with a specific manufacturing technique. However, differences in the thicknesses of the individual fragments suggest at least two window panes, 1.2 mm and 2 mm thick respectively. *Jaspe* is the Spanish term for crushed gypsum and was commonly utilized historically in construction throughout the American Southwest.

Personal Effect Items. Personal effects are portable items belonging to individuals who presumably lived, worked, or visited the site. These items usually include clothing, footwear, jewelry, medicine, objects of personal hygiene, money, devotional paraphernalia, and miscellaneous possessions. At LA 161535, four personal effects were collected, accounting for 2.7 percent of the total Euroamerican artifact assemblage. These consisted of a four-hole button measuring 1.3 cm in diameter and three medicine bottle fragments (patent=2, bitters=1). The medicine bottles could be representative of the nearby healthcare facility.

Entertainment, Leisure, and Education Items. Artifacts in the entertainment and leisure category indicate activities intended to entertain, amuse, or provide relaxation or recreation. One artifact was linked with this specific function-based category, a porcelain doll fragment. The doll is of a similar style and manufacture to dolls found in association with the NCO quarters at nearby Fort Marcy (Lentz and Barbour 2011) and presumably dates to the nineteenth century (Fig. 14).

Transportation Items. Transportation items are used in travel or conveyance of people or freight from one destination to another. At LA 161535, two horseshoes were identified. One possessed the chalks typically associated with a draft horse shoe, the other did not. The draft horseshoe measured 15 by 11.5 by 1 cm in size. The riding shoe was 12 by 12.5 by 0.5 cm in size. Both artifacts were made of iron and extremely rusted making it impossible to discern if the items were wrought or machine-made.

Military and Arms Items. Military and arms items represent objects associated with or used in warfare, self-protection, or hunting activities. These objects can include firearms, ammunitions, explosive devices, military clothing and insignias, and a variety of unidentifiable associated items. At LA 161535, one U.S. Army coat button was identified. The button measured 2 cm in diameters, was made of brass, and fabricated using the Sanders three-piece construction method. It was manufactured by the Scovill Manufacturing Company of Waterbury, Connecticut, during the mid-nineteenth century (Fig. 15).

Contextual Assemblages Summaries

Euroamerican artifacts were collected from a test pit, auger holes, and a backhoe trench. The auger holes and test pit were in the same area and represent the systematic collection of artifacts from the same stratigraphic sequence, whereas materials collected from the trench represent a judgmental sample of items identified by monitoring archaeologists during mechanical excavation. As the trench was placed over an existing utility line, materials found therein are mixed but are presumed to have been initially deposited within the immediate area. The assemblages collected from these three contexts are discussed below.

Test Pit. The majority of Euroamerican artifacts recovered during the project were collected from the test pit (n=99, 65.6 percent). The items were distributed across eight of the 11 broad function-based categories (Table 3). Unassignable (n=34), indulgence (n=16), and construction and maintenance (n=37) items were most common. Artifacts included common nails (n=10), beer bottle fragments (n=14), indeterminate can fragments (n=23), and window glass (n=13). Most of artifacts analyzed were not temporally diagnostic and while excavation was conducted in 10 cm blocks it was impossible to date the deposits by level. When viewed collectively, mean bottle glass and ceramic dating methods (Barbour 2011) suggest deposits dated to the late nineteenth or early twentieth centuries (Table 5). However, the large standard deviations are indicative of the lack of temporally sensitive attributes. It is possible to speculate that the high number of construction and maintenance items reflects building demolition or renovation activities occurring in the area during this time.

Backhoe Trench. Forty-three Euroamerican artifacts were collected from the backhoe trench

Figure 14. Doll (porcelain), utility trench, ca. nineteenth century.

Figure 15. Military button (brass), test pit, mid-nineteenth century.

(Table 3). These items consisted primarily of indulgence (n=9) and domestic (n=14) related materials. Many of the domestic items recovered from the trench were undecorated vitreous white-bodied earthenware vessel fragments (n=11, Table 4) believed to be associated with the nearby sanatorium. This matches well with the presence of patent medicine and bitters bottles also identified within the assemblage. These too could have been associated with the nearby sanatorium. Meanwhile, the ceramic sewer pipe is indicative of previous utilities installed within the trench. As with the test pit, materials from the trench date roughly to the late nineteenth or early twentieth centuries (Table 5) using mean bottle glass and ceramic dating methods. Once again, the large standard deviations result from a lack of temporally sensitive attributes within the artifact assemblage.

Auger Holes. Nine artifacts were collected from the auger holes. These included four indeterminate pieces of bottle glass, three beer bottle fragments, one machine-cut nail shank, and one common wire-drawn nail. One of the beer bottle fragments was a base with stippling suggesting it was manufactured with an automatic bottling machine (1904+; Lorrain 1968:43). The presence of indulgence and construction and maintenance materials is similar to the items encountered within the test pit. However, these materials are too few in number to accurately discern information regarding LA 161535.

Summary and Interpretation

In all, 151 Euroamerican artifacts were recovered during the CenturyLink project along Palace Avenue. These materials were recovered from a test pit, backhoe trench and four auger holes and were analyzed using standard methods created by the OAS (Boyer et al. 1994) to characterize Euroamerican artifact assemblages.

Artifacts were identified under 10 broad function-based categories. These included food, indulgence, domestic, construction and maintenance, personal effect, and transportation items. Some of the more interesting materials included horseshoes, a U.S. Army coat button, and fragment of an ale bottle. While these materials were identifiable by function, many were not very temporally diagnostic. The absence of Colonial materials, except for the hand-wrought nail, which could date as recently as the mid-nineteenth century, is somewhat problematic. Past archaeological excavations in the area had previously identified materials dating to the 1600s. This suggests that Colonial deposits documented during recent data recovery at the Drury Hotel site (Moore in prep.) do not extend into the test pit and trench area excavated during the current project area.

Statistically, the assemblages recovered from the test pit and backhoe trench are contemporaneous. Both represent the collection of materials from late nineteenth or early twentieth century deposits. Vitreous white-bodied earthenware and medicine bottles found within the backhoe trench may represent refuse associated with the nearby sanatorium. Hardware and building materials within the test pit could represent demolition or renovation of a structure. It is difficult to expand upon these interpretations of the Euroamerican artifact assemblages due to the small assemblage size.

Faunal Analysis

BY NANCY AKINS

Faunal remains from the CenturyLink project on Palace Avenue were analyzed using standard procedures described in most OAS fauna reports (e.g., Akins 2010). Data were entered into a computer database that catalogues descriptions of each piece of bone in terms of the taxon or size of animal; the element, side, and portion represented; how complete the element is; the age of the animal; how the specimen was aged; whether it was environmentally altered, animal altered, or burned; and whether any processing is evident (Table 6).

In all, 36 faunal items were analyzed. It appears that the entire range of domestic species was represented in the assemblage and that there may have been be no real indication of preference for cattle over sheep or goat. Many of the items, especially the cow bones, were axe sawed. In terms of value and yield, a full range of cuts was represented, suggesting portions that pro-

vided the highest yield were chosen. All of the cut and saw marks on cattle and on the sheep or goat bones are abrasions left by defleshing. This might suggest the beef was bought and the sheep or goat may have been "home butchered." However, the sample is too small to elaborate any further.

Ceramic Artifacts

BY RICHARD H. MONTOYA

In all, 83 ceramic artifacts were inventoried and analyzed. The great majority of the native pottery identified from the CenturyLink project along Palace Avenue displays a combination of characteristics indicative of pottery produced by Northern Tewa potters and commonly used by Tewa groups or traded to scattered Hispanic settlements during the seventeenth and eighteenth centuries (Batkin 1987; Frank and Harlow 1990; Mera 1939). Native historic pottery identified during the present study was assigned to types defined for three ware groups including micaceous utility, plain utility, and decorated polychrome wares (Table 7).

C. Dean Wilson (personal communication, March 27, 2012) feels that the majority of the ceramics represent a late eighteenth-century and early nineteenth-century component. However, the Tewa polychromes may suggest a late seventeenth-century component. There is a slight mix of prehistoric and Colonial types but these do not represent the majority of the types inventoried. Also, in comparison to the ceramic assemblage from the Drury project, this collection appears to be later due to the high amount of Glaze wares (the primary diagnostic type of the prehistoric Classic period) recovered from the Drury project (Moore 2009).

Figure 16. Carp pond, Archbishop Lamy's garden, 1887.

Summary and Conclusions

A monitoring program along East Palace Avenue for CenturyLink, Inc., by the Office of Archaeological Studies has been completed under the existing agreement. The field portion of the project included monitoring the excavation of a utility corridor along East Palace Avenue in the vicinity of Otero Street, and the excavation of a test pit within private property managed by Drury Hotels, Inc. The utility trench was designed to contain a new fiber optic line and was installed above a preexisting fiber optic utility. The test pit was excavated by OAS in advance of underground fiber optic connections to supply the proposed Drury Hotel with telecommunication services.

A brief summary of the artifact analysis, which combined for a total of approximately 279 artifacts from the trench and the test pit, suggests that the majority of the cultural materials were recovered from secondary deposition. Moreover, the sample sizes were too small to be able to draw any substantive conclusions. Viewed from an assemblage-based perspective, however, several generalizations can still be offered. Among these is the observation that the diagnostic artifacts from the four artifact classes reflect turn-of-the-twentieth-century use of the area east of the Santa Fe plaza by a late historic population. Native occupation is indicated by ceramics broadly dating to between 1175 and the eighteenth century. Tewa Polychrome and other wares that date between 1650 and 1725, and a small quantity of European artifacts, suggest a possible Colonial component similar to the one found at the Drury property. This horizon was not as localized nor as pronounced as that encountered by Moore (2009) but, as we have said, the assemblages on a whole had little integrity and apparently resulted from widely dispersed and repeatedly disturbed artifact deposits.

Euroamerican ceramic artifacts were dominated by undecorated white-bodied earthenware, commonly referred to as "hotelware" or "hotel china," which was mass-manufactured in the late nineteenth and early twentieth century, typically for use in hotels, at dinners, and in institutional settings. In all probability, these broken plates, cups, and saucers originated from the nearby kitchens of Marian Hall or Sena Plaza. The presence of higher grade Continental and Asian porcelain implies some degree of social stratification; however, whether Marian Hall, Sena Plaza, or a private residence provided elegant dining is unknown.

In her faunal analysis Akins concludes that, during late historic times, the whole range of domestic animals was exploited and that there may have been no real preference for cattle over sheep or goat, but possibly a selection for portions that provided the highest yield. All of the butchering marks were on cattle (saw and steak cuts), while abrasions left by defleshing were on the sheep or goat. These patterns could suggest the beef was bought at a market and the sheep or goat may have been "home butchered." However, Akins cautions the sample is too small to infer any information about specific subsistence practices beyond that level. Thus, the combination of mass-manufactured dinnerware and saw-cut bone of medium- to upper-quality meats suggest some institutionalized food service, possibly from Sena Plaza, or Marian Hall. Earthenware and medicine bottles may represent refuse associated with the nearby sanatorium. Hardware and building materials within the test pit are almost certainly from the various episodes of demolition and renovation of Marian Hall since the 1895 fire.

The one human bone recovered from the test pit was probably an isolated element from the redeposited bones at the Spiegelberg house a half block away. According to Cordelia T. Snow (personal communication, August 14, 2012), in 1881, an unknown number of burials were uncovered during the excavation for the basement of the Spiegelberg store, and these bones were then turned over to Archbishop Lamy for reburial. The remaining excavated fill was dumped along East Palace Avenue, possibly along a stretch in front of the (then) new Spiegelberg house at the corner of East Palace and Paseo de Peralto to fill in the cienega. However, the monitoring of a PNM utility trench by OAS in February 2012 revealed no such deposits (Montoya, personal communication, March 9, 2012).

Although the test pit was located in proximity to an area previously identified as yielding an important seventeenth-century Spanish Colonial feature (Feature 6, LA 161535; a possible cobble road), no sign of this feature was encountered. Instead, construction debris from the 1911 or 1954 Marian Hall remodeling episodes predominated, as did the remains of an historic brick feature. Also recovered from the test pit were native ceramics from the Spanish Colonial period or slightly later, e.g., Tewa Polychrome, Tewa polished black, buff, and red, along with micaceous utility wear. The assemblage also contained pottery from other eras—the thirteenth century (Santa Fe Black-on-white), fourteenth century (Glaze wares), and the eighteenth century (Powhoge Polychrome)—indicating considerable mixing of types and significant disturbance. A few seventeenth- and eighteenth-century native ceramics, a minute amount of lithic artifacts, and two strike-a-lights suggest possible association with the Colonial component at Drury. However, strike-a-lights were used throughout Colonial times and up through the early twentieth century. The question remains: where does this seventeenth-century component identified in the vicinity of the current project originate? None of the maps or archival documents of that time suggest the existence of anything other than fields, dirt footpaths, and swampy land between St. Francis Cathedral and what is now East Palace Avenue. It is possible that the Colonial materials may have originated from the construction of the first church in 1610, or from refuse created when Fray Alonso Benavides tore down the first church to erect a second church in 1628. Local natives or Hispanic workers may have camped in that area during the construction. A short distance to the southwest, disturbed Colonial deposits and early historic native ceramics were found in the course of data recovery at the La Fonda Hotel parking structure site (Wiseman 1990). The sporadic nature of the seventeenth-century materials suggests that trash may have been discarded in pits during clean-up activities. For now, however, the origin of these materials remains problematic.

The single feature encountered in the test pit on the Drury property was tentatively identified as a turn-of-the-twentieth-century landscape detail, e.g., a double-rowed brick alignment probably associated with the pre-1954 Marian Hall components. As such, it is not of great theoretical or practical importance other than to suggest that residents of the community planted gardens and landscaped during this period. Beginning in the 1870s, and well into the twentieth century, Archbishop Lamy's garden with its ponds of carp and fantastical bridges, orchards, and gardens, was a great attraction for residents and tourists (Fig. 16). This entire well-watered gardening complex existed a short distance south of the project area. Although Santa Fe was often derided as a primitive-appearing village with little aesthetic value, there is ample evidence that the local population attempted to improve the appearance of the town. C. T. Snow (personal communication, March 13, 2012) has concluded that almost every owner of a house and garden lot in Santa Fe had at least one fruit tree, and that there was an orchard on the east side of East Palace Avenue as early as the 1660s. In 1844, Governor Martinez de Lejarza planted trees on the plaza, which at that time was devoid of all vegetation, and created the city's first park, near the Rosario Chapel (Read 1912:92).

An early photograph of the plaza in 1865 (MNM Neg. 15285) shows landscaping with large cottonwood trees, grass, flowers, and shrubbery. In 1867, a gazebo was erected in the center of the plaza (MNM Neg. 11256). In the late nineteenth century, the Fort Marcy officer and NCO quarters is depicted with trees and a vine covered porch (MNM Neg. 001712). The *bosque* along the Santa Fe River has continuously flourished with cottonwoods, tamarisk, and Navajo willow, and has been regularly maintained since the 1920s.

In conclusion, little substantive information on the history or prehistory of Santa Fe can be inferred from the archaeology of the CenturyLink project. Results were consistent with other findings in the area, and are dominated by disturbed turn-of-the-twentieth-century deposits and an equally disturbed scatter of native materials stretching over several hundred years. Nonetheless, an interesting glimpse of city life from the perspective of a century ago is seen in small historical details, features, and artifacts, suggesting an emphasis on urban improvement and community pride on the part of the citizens of Santa Fe.

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Appendix 1. Tables

1535	Shipwrecked Cabeza de Baca, two crew members and a Moorish slave, Esteban, learn of the Río Grande pueblos. Views the Zuni area, calling it the Seven Cities of Cibola.
1539	Fray Marcos de Niza is guided to Hawikuh (near Zuni) by Esteban. Seeing Esteban killed, Niza claims possession for the King and hastens homeward.
1540–1541	Coronado's expedition to Zuni, Hopi, Acoma, and Tiguex is marked by brutality to the natives. Failing to find gold, Coronado returns to New Spain.
1581	Chamuscado expedition to Puaray.
1582	Espejo expedition to Hopi and Verde Valley.
1590–1591	Castaño de Sosa expedition to Pecos, the Tewa pueblos, and Santo Domingo.
1598	Oñate's colony of San Gabriel founded at San Juan Pueblo.
1599	Siege and massacre at Acoma by Vicente de Zaldívar, Oñate's nephew.
1607	Oñate's policies bring about his removal.
1609	Juan de Peralta is proclaimed the new governor of New Mexico. The capital is moved to the Villa of Santa Fe.
1626	Construction of the Church of San Miguel in the Barrio de Analco in Santa Fe. Destroyed in the Pueblo Revolt, it was rebuilt in 1710.
1630	Father Benavides reports on conditions among the pueblos.
1680	The Pueblo Revolt. Because of economic and religious oppression, nearly all of the pueblos rise up against the Spanish, killing 400 people and 21 Franciscan missionaries. New Mexico remains under native control for 12 years.
1681–1682	During Otermín's attempted reconquest, he burns all pueblos south of Cochití.
1692	Don Diego de Vargas reconquest. Kills pueblo holdouts at Black Mesa. Executes 70 pueblo leaders.
1695	Santa Cruz, near Española, decreed second villa.
1696	Second revolt of the pueblos brutally suppressed.
1680–1750	Numerous attacks on Spanish settlements, including Santa Fe, by Navajo, Ute, Apache, and Comanche raiding parties.
1698	Sebastian Martín and his family settle north of Santa Fe and begin the construction of a large irrigation ditch (acequia).
1706	Albuquerque declared third villa.

Table 1. Entradas and important historical dates in relations between the Pueblos and the Spaniards.

Material Type	Artifact Function			
	Strike-a-light Flint	Unutilized Angular Debris	Unutilized Flake	Total
Pedernal chert	1	–	–	1
Madera chert	–	–	1	1
Tan chert	1	–	–	1
Cream chert	–	1	–	1
Limestone	–	2	3	5
Total	2	3	4	9

Table 2. Lithic artifacts.

Category	Type	Function	Context			Total	
			Test Pit	Trench	Auger Hole	Count	Table %
Unassignable	Unidentifiable	unidentifiable	1	1	–	2	1.3%
		bottle, indet.	8	–	4	13	8.6%
		can, indet.	23	5	–	28	18.5%
		tubing	1	–	–	1	0.7%
Food	Bottled goods	condiment bottle	1	–	–	1	0.7%
Indulgences	Soda/ carbonated beverage	soda bottle	1	–	–	1	0.7%
	Wine	wine bottle	1	1	–	2	1.3%
	Beer	beer bottle	14	7	3	24	15.9%
		ale bottle	–	1	–	1	0.7%
Domestic	Dishes	bowl	4	6	–	10	6.6%
		cup	–	2	–	2	1.3%
		soup plate	–	1	–	1	0.7%
		vessel, indet.	2	3	–	5	3.3%
		plate	1	–	–	1	0.7%
		platter	1	2	–	3	2.0%
Furnishings	Furniture	flower pot	1	–	–	1	0.7%
Construction/ maintenance	Unidentifiable	sheet	2	–	–	2	1.3%
		plate	–	1	–	1	0.7%
		strap/band/ strip	3	2	–	5	3.3%
		wire	1	–	–	1	0.7%
	Hardware	bolt	–	1	–	1	0.7%
		nail, indet., cut	7	–	1	8	5.3%
		nail, indet., wire	1	–	–	1	0.7%
		nail, common	10	–	1	11	7.3%
		bracket, indet.	–	1	–	1	0.7%
	Building materials	window glass	13	–	–	13	8.6%
		jespe	–	2	–	2	1.3%
	Plumbing	sewer pipe	–	1	–	1	0.7%
Personal effects	Clothing	button, four-hole	1	–	–	1	0.7%
	Medicine/ health	patent medicine bottle	–	2	–	3	2.0%
		bitters bottle	–	1	–	3	2.0%
Entertainment & leisure	Toys	doll	–	1	–	1	0.7%
Transportation	Animal power	horseshoe, riding	–	1	–	1	0.7%
		horseshoe, draft	–	1	–	1	0.7%
Military & arms	Military clothing & insignia	coat button, army	1	–	–	1	0.7%
Total			89	43	9	151	100.0%

Table 3. Euroamerican artifacts, LA 161535.

Ware	Aesthetic Design	Function	Context		Total	
			Test Pit	Trench	Count	Mean No. of Vessels
Eastern porcelain	Aesthetic Movement	vessel, indet.	–	1	1	1
Continental porcelain	undecorated	bowl	1	–	1	1
		vessel, indet.	1	–	1	1
		plate	1	–	1	1
Semivitreous white-bodied earthenware	undecorated	vessel, indet.	1	2	3	2
Vitreous white-bodied earthenware	undecorated	bowl	–	5	5	3
		cup	–	2	2	1
		soup plate	–	1	1	1
		platter	1	2	3	2
	traditional	bowl	3	1	4	3
Total			8	14	18	18

Table 4. Distribution of Euroamerican ceramics by vessel type.

Context	Material	Mean	Mean No. of Vessels	SD
Test pit	Ceramic	1888	7	16.80
	Glass	1824	5	18.58
Trench	Ceramic	1904	12	17.92
	Glass	1858	2	31.82
Auger hole	Glass	1957	1	0.00
Total	Ceramic	1898	19	18.94
	Glass	1911	8	39.73

Table 5. Results of mean bottle glass and ceramic dating methods.

		Test Pit (5 x 5 m)		Auger Tests		Total	
Taxon	Common Name	Count	Col. %	Count	Col. %	Count	Col. %
Small ungulate	Small ungulate	5	15.2%	–	–	5	13.9%
Medium–large ungulate	Ungulate	11	33.3%	1	33.3%	12	33.3%
Bos taurus	Cattle	6	18.2%	2	66.7%	8	22.2%
Ovis, Capra	Sheep or goat	8	24.2%	–	–	8	22.2%
Sus scrofa	Pig	1	3.0%	–	–	1	2.8%
Gallus gallus	Chicken	2	6.1%	–	–	2	5.6%
Table Total		33	100.0%	3	100.0%	36	100.0%
Age							
Immature		1	3.0%	–	–	1	2.8%
Juvenile		11	33.3%	3	100.0%	14	38.9%
Mature		21	63.6%	–	–	21	58.3%
Completeness							
<10%		22	66.7%	1	33.3%	23	63.9%
10–50%		8	24.2%	–	–	8	22.2%
50–75%		2	6.1%	1	33.3%	3	8.3%
75–95%		1	3.0%	1	33.3%	2	5.6%
Checked/exfoliated							
		11	33.3%	1	33.3%	12	33.3%
Processing							
None		28	84.8%	3	100.0%	31	86.1%
Cut through		1	3.0%	–	–	1	2.8%
Sawn through		1	3.0%	–	–	1	2.8%
Deffeshing		1	3.0%	–	–	1	2.8%
Steak, chop, or roast cuts		2	6.1%	–	–	2	5.6%

Table 6. Fauna.

FS No.	Ceramic Type	Form	Count
	Test Pit		
4	Tewa Buff, undifferentiated	body, unpolished interior/polished exterior	1
	Tewa Buff, undifferentiated	body, polished interior/exterior	1
	Tewa unpolished buff	body, unpolished	1
	Tewa Polished Gray	body, polished interior/exterior	2
	Tewa Polished Gray	body, unpolished interior/polished exterior	1
	Tewa Polished Gray	body, polished interior/unpolished exterior	2
	Tewa Polished Black	jar neck	2
	Tewa Polished Black	body, polished interior/exterior	1
	Tewa Polished Black	body, unpolished interior/polished exterior	1
	Unpolished micaceous slip	body, unpolished	2
	Highly micaceous paste	body, unpolished	1
	Tewa Polished Red	jar rim	1
	Tewa Polished Red	body, polished interior/exterior	2
	Tewa Polished Red	jar rim	1
	Tewa Polished Red	body, polished interior/unpolished exterior	2
	Tewa Polished Red	body, polished interior/exterior	1
	Tewa Polished Red	body, unpolished interior/polished exterior	2
	Historic white/cream, slipped, unpainted	bowl body	2
	Tewa Polychrome painted, undifferentiated	jar body	1
	Powhoge Polychrome	jar body	1
	Glaze red, unpainted	bowl body	1
	Historic polished black (MRG)	body, polished interior/exterior	1
5	Tewa Buff, undifferentiated	body, polished interior/unpolished exterior	1
	Smudged interior, mica-slipped exterior	body, polished interior/unpolished exterior	1
	Tewa Polished Red	bowl rim	1
	Tewa Polished Red	body, polished interior/unpolished exterior	3
	Tewa Polished Red	body, polished interior/exterior	1
	Tewa Polished Red	body, unpolished	1
	Tewa Polished Black	body, polished interior/unpolished exterior	1
	Historic white/cream, slipped, unpainted	jar body	1
	Black-on-cream, undifferentiated	jar body	1
	Glaze, unslipped, unpainted	jar body	1
	Santa Fe Black-on-white	bowl body	1
6	Tewa unpolished buff	body, unpolished	3
	Highly micaceous paste	jar neck	1
	Tewa Polished Black	body, polished interior/unpolished exterior	1
	Historic white/cream, slipped, unpainted	jar neck	1
	Black-on-cream, undifferentiated	bowl body	3
	Glaze red, unpainted	bowl body	1
	Powhoge Polychrome	jar body	1
7	Tewa Buff, undifferentiated	body, polished interior/unpolished exterior	1
	Tewa Polished Red	bowl rim	1
8	Tewa unpolished buff	body, unpolished	3
	Tewa unpolished buff	jar neck	1
	Tewa Polished Red	body, polished interior/exterior	2
	Highly micaceous paste	body, unpolished	1
	Historic white/cream, slipped, unpainted	jar body	1
	Glaze red, unpainted	bowl rim	1
	Glaze red, unpainted	jar body	1
9	Tewa unpolished buff	body, unpolished	8
	Tewa Polished Red	body, unpolished	3
	Tewa Polished Red	jar neck	1
	Glaze red, unpainted	bowl body	2
	Auger Holes		
14	Tewa Polished Red	body, polished interior/exterior	1
15	Glaze, unslipped, unpainted	bowl body	2
17	Tewa Polished Red	body, polished interior/exterior	1
	Backhoe Trench on Palace Avenue		
10	Tewa Polychrome, painted, undifferentiated	bowl body	1

Table 7. Ceramic types.